HCD-H590/H590M

SERVICE MANUAL

AEP Model

HCD-H590/H590M is the CD player/stereo deck receiver in the mini HiFi stereo system FH-B590/MHC-590.
The mechanical and electrical specifications of HCD-H590/H590M are almost same as those of HCD-H550/H550M.
So this manual contains only the points which differ from HCD-H550/H550M.
For the informations not contained in this manual, please refer to the HCD-H550/H550M service manuals (9-959-539-□□) previously issued.

MICROFILM

MINI Hi-Fi COMPONENT SYSTEM

SONY®

• DIFFERENT PARTS LIST

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreiations
  5 :H550 G :German IT :Italian
  M: H550M EE : East European

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Page	Ref. No.	HCD-H550/H550M	HCD-H590/H590M
	1	X-4945-164-1 LID (B) ASSY; CASSETTE	X-4945-554-1 LID (B) ASSY, CASSETTE
	2	X-4945-163-1 LID (A) ASSY, CASSETTE	X-4945-553-1 LID (A) ASSY, CASSETTE
	4	*A-6369-636-A POWER BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE)	*A-4369-636-A POWER BOARD, COMPLETE (AEP, EE)
	4	*A-6369-638-A POWER BOARD, COMPLETE (5:G/M:IT)	*A-4369-638-A POWER BOARD, COMPLETE (G, IT)
	8	⚠1-575-651-21 CORD, POWER (5:AEP, CIS, EA, MY, SP/M:AEP, EE)	⚠1-575-651-21 CORD, POWER (AEP, EE)
54	8	⚠1-765-650-11 CORD, POWER (5:G/M:IT)	⚠1-765-650-11 CORD, POWER (G, IT)
	10	4-963-306-51 CASE (M)	4-963-306-52 CASE (H590M)
	10	4-964-234-41 CASE (FH) (5:AEP, G, CIS)	*4-964-234-41 CASE (FH) (H590)
	12	*A-4369-619-A MAIN BOARD, COMPLETE (M:EE)	*A-4377-464-A MAIN BOARD, COMPLETE (H590:EE)
	12	*A-4369-640-A MAIN BOARD, COMPLETE (M:IT)	*A-4369-640-A MAIN BOARD, COMPLETE (H590M:G, IT)
	12	*A-4369-617-A MAIN BOARD, COMPLETES (5:AEP)	*A-4369-617-A MAIN BOARD, COMPLETE (H590:AEP)
	12	*A-4369-639-A MAIN BOARD, COMPLETES (M:AEP)	*A-4369-639-A MAIN BOARD, COMPLETE (H590M:AEP)
	18	1-765-477-21 WIRE (FLAT TYPE) (9 CORE)	1-765-477-31 WIRE (FLAT TYPE) (9 CORE)
	51	*X-4944-703-1 PANEL ASSY, FRONT (5:AEP, G, CIS)	*X-4945-552-1 PANEL ASSY, FRONT (H590)
	51	*X-4944-817-1 PANEL ASSY, FRONT (M)	*X-4945-573-1 PANEL ASSY, FRONT (H590M)
	52	4-965-452-01 BUTTON (E) (L)	4-965-452-11 BUTTON (E) (L)
	53	X-4944-434-1 BUTTON (M1) ASSY	X-4945-550-1 BUTTON (M1) ASSY
	54	*A-4369-630-A DISPLAY BOARD, COMPLETE (M:EE)	*A-4369-630-A DISPLAY BOARD, COMPLETE (EE)
	54	*A-4369-631-A DISPLAY BOARD, COMPLETE (5:G)	*A-4369-631-A DISPLAY BOARD, COMPLETE (G)
	54	*A-4371-142-A DISPLAY BOARD, COMPLETE (M:IT)	*A-4371-142-A DISPLAY BOARD, COMPLETE (IT)
	57	4-963-286-11 PANEL, LOADING	4-963-286-21 PANEL, LOADING
	58	X-4944-415-1 HOLDER (L) ASSY, CASSETTE	X-4945-776-1 HOLDER (L) ASSY, CASSETTE
55	61	1-765-481-21 WIRE (FLAT TYPE) (21 CORE)	1-765-481-31 WIRE (FLAT TYPE) (21 CORE)
	62	1-765-478-21 WIRE (FLAT TYPE) (11 CORE)	1-765-478-31 WIRE (FLAT TYPE) (11 CORE)
	64	X-4944-416-3 HOLDER (R) ASSY, CASSETTE	X-4945-777-1 HOLDER (R) ASSY, CASSETTE
	65	1-765-480-21 WIRE (FLAT TYPE) (19 CORE)	1-765-480-31 WIRE (FLAT TYPE) (19 CORE)
	66	X-4944-701-1 BUTTON (M2) ASSY	X-4945-551-1 BUTTON (M2) ASSY
	67	4-965-453-01 BUTTON (E) (R)	4-965-453-11 BUTTON (E) (R)
	69	4-963-655-01 BUTTON (CDP)	4-963-655-11 BUTTON (CDP)
	70	4-963-284-11 KNOB (S)	4-963-284-21 KNOB (S)
	74	*A-4369-624-A SWITCH BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE)	*A-4369-624-A SWITCH BOARD, COMPLETE (AEP, EE)
	74	*A-4369-626-A SWITCH BOARD, COMPLETE (5:G/M:IT)	*A-4369-626-A SWITCH BOARD, COMPLETE (G, IT)
78		ACCESSORIES & PACKING MATERIALS	
		————————	*4-965-152-01 CUSHION (FRONT)
		————————	*4-965-153-01 CUSHION (REAR)

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HCD-H550/H550M

SERVICE MANUAL

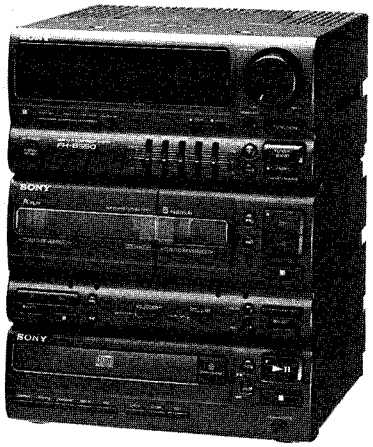


Photo: HCD-H550

AEP Model
E Model
Australian Model
PX Model
HCD-H550
US Model
Canadian Model
AEP Model
UK Model
HCD-H550M

HCD-H550/H550M are the CD player and stereo deck receiver in FH-B511/B550/MHC-550.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
" DOLBY" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM28-5BD17A
	Base Unit Type	BU-5BD17A
TAPE DECK SECTION	Model Name Using Similar Mechanism	TC-WR445
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

CD player section

System Compact disc digital audio system
Laser Semiconductor laser
Wavelength 780 – 790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
Except CIS, EE
JE, PX model : 87.5 – 108.0 MHz
CIS, EE model : 65.0 – 74.0 MHz
87.5 – 108.0 MHz
JE, PX model : 76.0 – 108.0 MHz
Antenna
HCD-H550 : Telescopic antenna
HCD-H550M : FM lead antenna
Antenna terminals
75 ohm unbalanced
Intermediate frequency
10.7 MHz

AM tuner section

Tuning rrange
US, CND model : AM530 – 1,710 kHz
AEP, UK, CIS,
EE model : MW531 – 1,602 kHz
LW153 – 279 kHz
G model : AM531 – 1,602 kHz
IT model : AM522 – 1,611 kHz
AUS model : MW531 – 1,602 kHz
SW5.95 – 17.9 MHz
E, EA, MX, MY, SP,
PX, JE model : MW531 – 1,602 kHz
(at 9 kHz step)
MW530 – 1,710 kHz
(at 10 kHz step)
SW5.95 – 17.9 MHz
Antenna AM loop antenna
External antenna terminals
Intermediate frequency
450 kHz

Cassette deck section

Recording system
4-track 2-channel stereo
Frequency response
(DOLBY NR OFF)
60 – 13,000 Hz (±3 dB), using TYPE I cassette (Sony HF-S)
60 – 14,000 Hz (±3 dB), using TYPE II cassette (Sony UX-S)
Wow and flutter
0.1% WRMS ±0.3% (DIN)

Amplifier section

Coutinupus RMS Power output:
30+30 watts (6 ohms at 1 kHz, 5% THD)
Peak music power output:
300 watts (2 speakers driven)

Inputs
MIX MIC (mini jack)
(EXCEPT H550: AEP, G, CIS/H550M):
Sensitivity 1 mV, impedance 600 ohms
VIDEO/AUX (H550: EXCEPT AEP, G/H550M: US, CND): Sensitivity 450 mV, impedance 47 kilo ohms
PHONO (phono jack)
(AEP, UK, EE, G, IT): sensitivity 5 mV, impedance 47 kilohms

— Continued on next page —

MICROFILM

MINI Hi-Fi COMPONENT SYSTEM

SONY®

Outputs
HEADPHONES (stereo mini jack):
accept headphones of 8 ohms or more.
SPEAKER: accept impedance of 6 to 16 ohms.

Supplied accessories
AM loop antenna (1)
Remote commander (1)
Sony SUM-3 (NS) batteries (2)

General

Destination	Power requirements	Power consumption
US, CND model	120 V AC, 50/60 Hz	80 W
AEP, CIS, EE, G, IT model	220 – 230 V AC, 50/60 Hz	80 W
UK model	240 V AC, 50 Hz	80 W
AUS model	220 – 240 V AC, 50 Hz	80 W
Other model	110 – 120/ 220 – 240 V AC, adjustable, 50/60 Hz	80 W

Dimensions Approx. 225 x 285 x 275 mm (w/h/d) incl. projecting parts and controls
Mass Approx. 5.7 kg

Design and specifications are subject to change without notice.

- Abbreviations

AUS	: Australian	IT	: Italian
CND	: Canadian	JE	: Tourist
EA	: Saudi Arabia	MX	: Mexican
EE	: East European	MY	: Malaysia
G	: German	SP	: Singapore

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

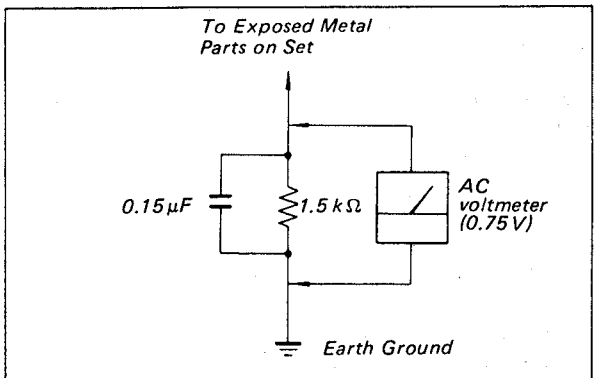


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

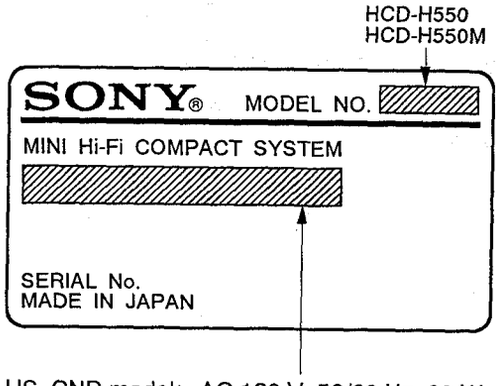
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

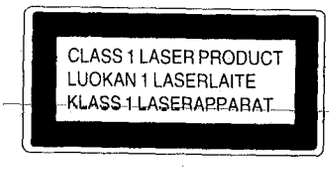
MODEL IDENTIFICATION

– Specification Label –

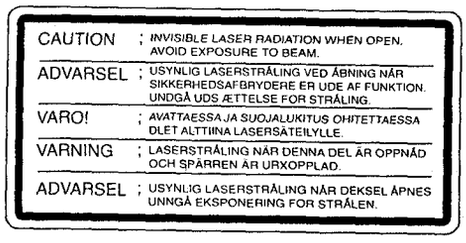


US, CND model: AC 120 V, 50/60 Hz, 80 W
AEP, CIS, EE, G, IT model:
AC 220 – 230 V ~50/60 Hz, 80 W
UK model : AC 240 V, 50 Hz, 80 W
E, EA, JE, MX, MY, PX, SP model:
AC 110 – 120, 220 – 240 V, 50/60 Hz, 80 W
AUS model : AC 240 V, 50 Hz, 80 W

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING ; LASERSTRÅLING NÄR DENNA DEL ÄR OPPNÅD OCH SPÄRREN ÄR URXOPPLAD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

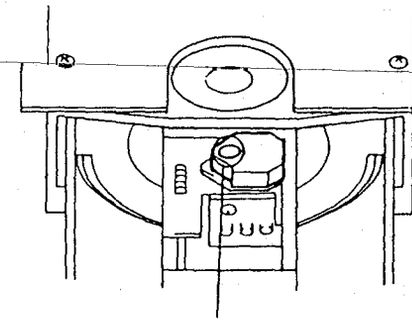
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



❶ Confirm that laser beam is spread.
❷ Up and downmotion of the objective lens. (3 times)

TABLE OF CONTENTS

Section	Title	Page
	Specifications	1
	Safety Check-out	2
	Model Identification	3
	Servicing Note	3
1.	**GENERAL**	
	Index to Parts and Controls	4
2.	**DISASSEMBLY**	6
3.	**MECHANICAL ADJUSTMENTS**	9
4.	**ELECTRICAL ADJUSTMENTS**	
	Deck Section	9
	Tuner Section	11
	CD Section	13
5.	**DIAGRAMS**	
5-1.	CD Section Block Diagram	15
5-2.	Other Section Block Diagram	17
5-3.	Main, Display Section Printed Wiring Boards	22
5-4.	Main Section Schematic Diagram	27
5-5.	Display Section Schematic Diagram	31
5-6.	Polar Printed Wiring Board and Schematic Diagram	35
5-7.	CD Section Printed Wiring Boards	37
5-8.	CD Section Schematic Diagram	39
5-9.	Tape Section Schematic Diagram	42
5-10.	Tape Section Printed Wiring Boards	45
5-11.	IC Pin Function	52
6.	**EXPLODED VIEWS**	54
7.	**ELECTRICAL PARTS LIST**	60

SECTION 1
GENERAL

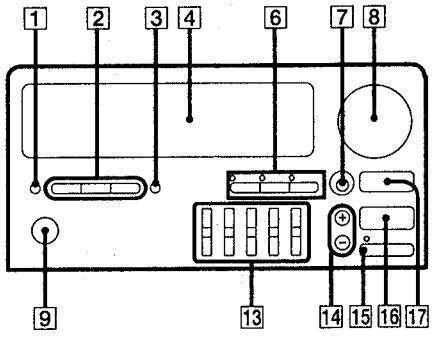
This section is extracted from instruction manual.

Index to Parts and Controls

Refer to the pages indicated in parentheses for how to use the controls.
Controls with an asterisk have indicators on themselves.

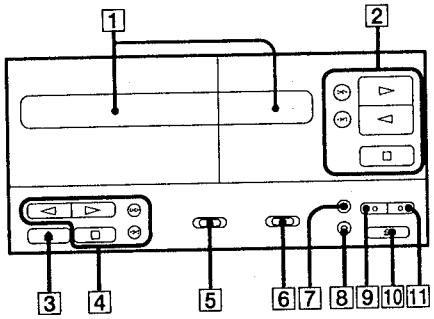
Front Panel

Tuner/Amplifier



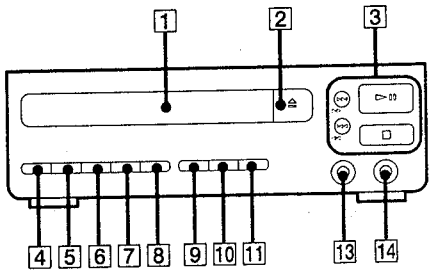
1 Remote sensor
2 TIMER SET button (19, 20)
DAILY button (19)
REC TIMER button (20)
3 CLOCK SET button (6)
4 Display window (7)
6 KARAOKE PON button (21)
DBFB button (18)
S-SUR button (18)
7 MEMORY/NEXT button (6, 11, 19, 20)
8 VOLUME control (7, 18, 21)
9 SYSTEM POWER ON/STANDBY switch (7)
13 Graphic equalizer (18)
14 TUNER/TIMER (+/–) button (6, 10, 11, 19, 20)
15 PRESET/TUNING buttons (10, 11)
16 TUNER/BAND button (10, 11, 16)
17 FUNCTION button (8, 21)

Tape player



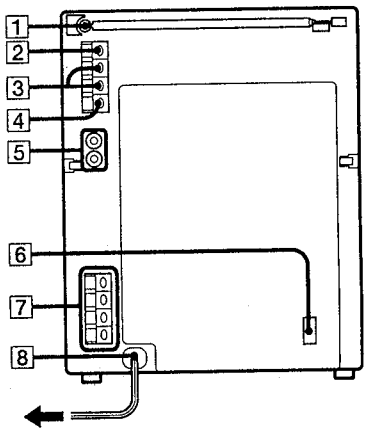
1 Tape compartments (12)
2 Tape operating buttons and lamp (for deck B)
▷ (front side play) (12)
◁ (reverse side play) (12)
■ (stop play) (12)
▶▶ (fast rightward) (12)
◀◀ (fast leftward) (12)
3 ⏏ button (for deck A) (12)
4 Tape operating buttons and lamp (for deck A)
▷ (front side play) (12)
◁ (reverse side play) (12)
■ (stop play) (12)
▶▶ (fast rightward) (12)
◀◀ (fast leftward) (12)
5 DIRECTION switch (12)
6 DOLBY NR switch (12)
7 ▯▯ PAUSE button (12)
8 ● REC button (14, 16)
9 HIGH SPEED DUBBING button (17)
10 ⏏ button (for deck B) (12)
11 CD SYNCHRO button (13, 14, 15)

CD player



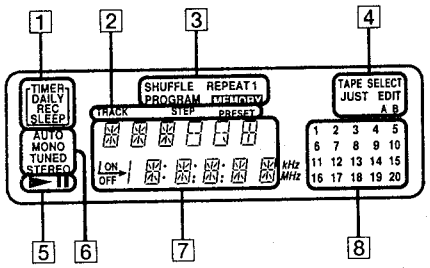
1 CD tray (7)
2 ⏏ OPEN/CLOSE button (7)
3 CD player operating buttons
▶II (play and pause) (7)
■ (stop play) (7)
⏮◀◀/▷▷⏭▶▶ (manual search/AMS (7)
4 CONTINUE button (8)
5 SHUFFLE button (8)
6 PROGRAM button (8)
7 REPEAT button (9)
8 TIME button (8)
9 CHECK button (9)
10 CLEAR button (9)
11 EDIT button (14)
13 MIX MIC 2 jack (21)
14 HEADPHONES jack (18)

Rear Panel



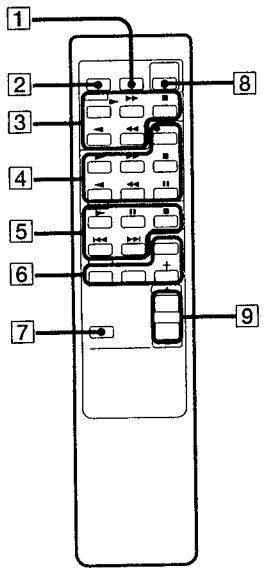
1 FM telescopic antenna
2 FM 75Ω terminal (4)
3 ⏚ earth terminals (4)
4 AM terminal (4)
5 VIDEO/AUX jacks (21)
6 VOLTAGE SELECTOR (5)
7 SPEAKER connector (5)
8 AC power cord (5)

Display Window



1 Timer indications (19)
2 TRACK/STEP/PRESET indication (8, 11)
3 CD play and MEMORY indications (8, 11)
4 CD recording indications (14)
5 CD play and pause indication (7)
6 Tuner indications (10)
7 Time/frequency indication (6, 10)
8 Music calendar/preset radio station numbers (7, 11)

Remote commander

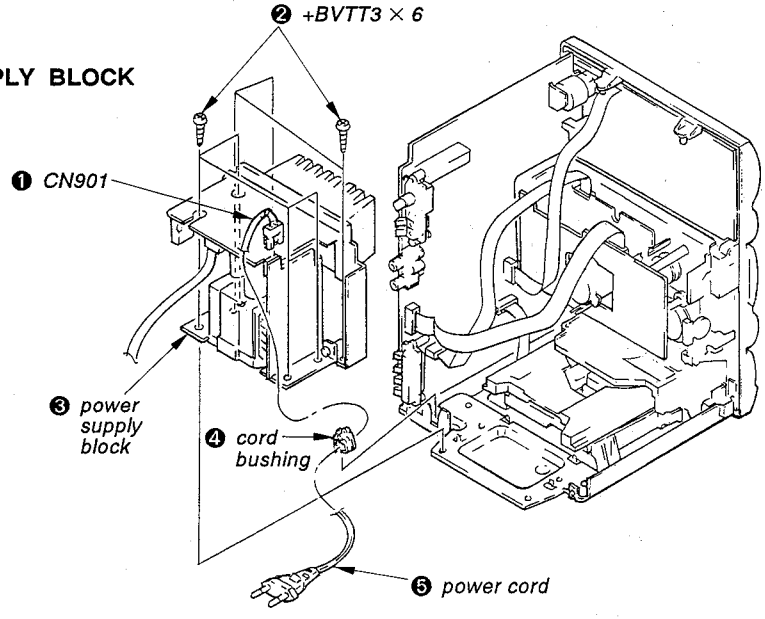


1 SLEEP button (19)
2 FUNCTION button (7, 21)
3 Deck A operating buttons
▶ (front side play) (12)
◀ (reverse side play) (12)
▶▶ (fast rightward) (12)
◀◀ (fast leftward) (12)
■ (stop) (12)
4 Deck B operating buttons
▶ (front side play) (12)
◀ (reverse side play) (12)
▶▶ (fast rightward) (12)
◀◀ (fast leftward) (12)
II (pause) (12)
■ (stop) (12)
● REC (recording) (14, 16)
5 CD operating buttons
▶ (play) (7)
⏮ / ⏭ AMS* (7)
II (pause) (7)
■ (stop) (7)
* AMS: Automatic Music Sensor
6 Tuner operating buttons
BAND button (10)
PRESET (+/–) buttons (11)
STEREO/MONO button (10)
7 CLOCK DISPLAY (6)
8 SYSTEM POWER button (7)
9 VOL (+/–) (volume) buttons (7, 18, 21)

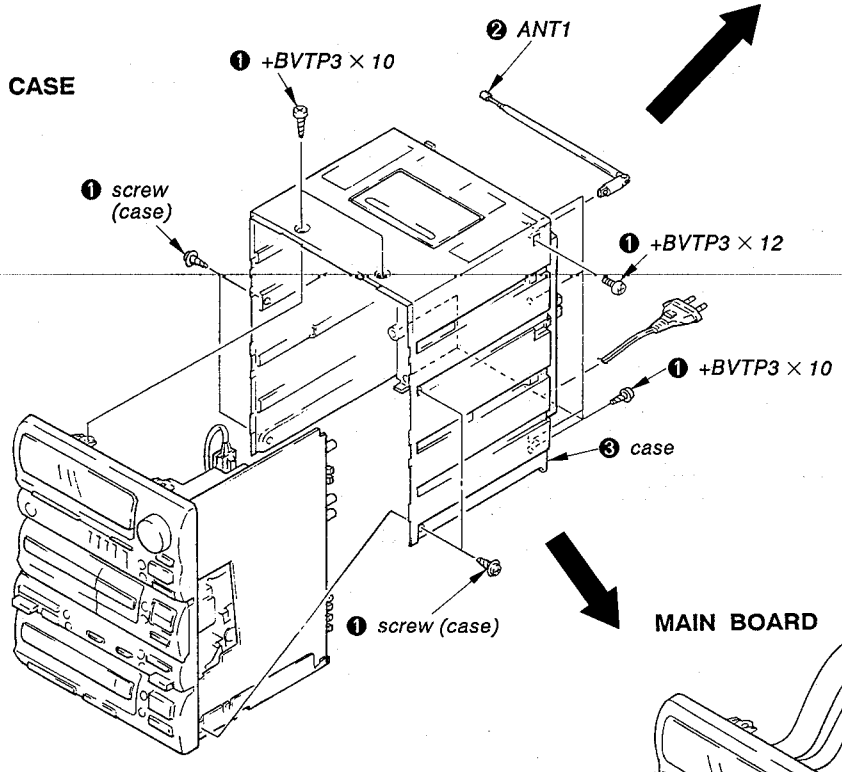
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

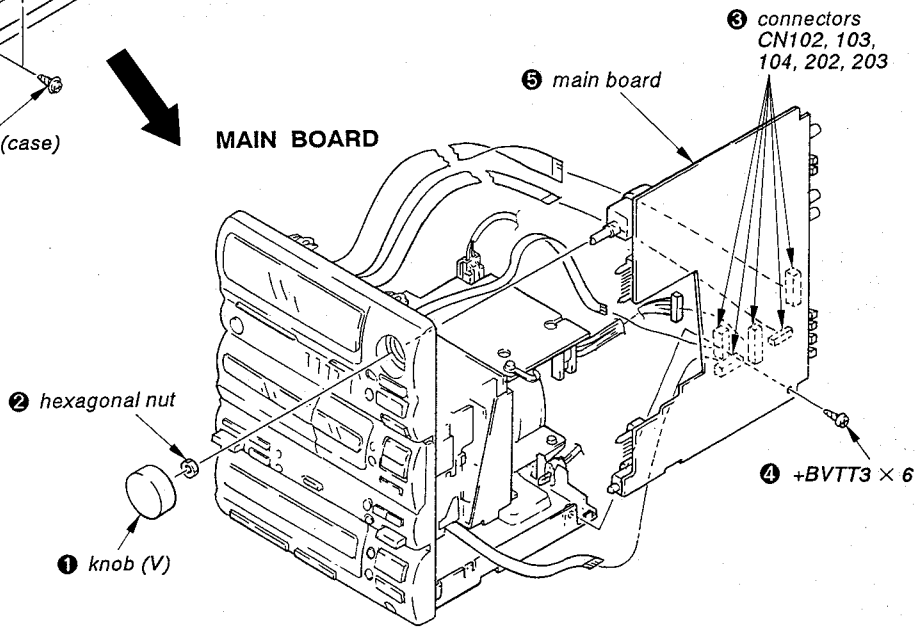
POWER SUPPLY BLOCK



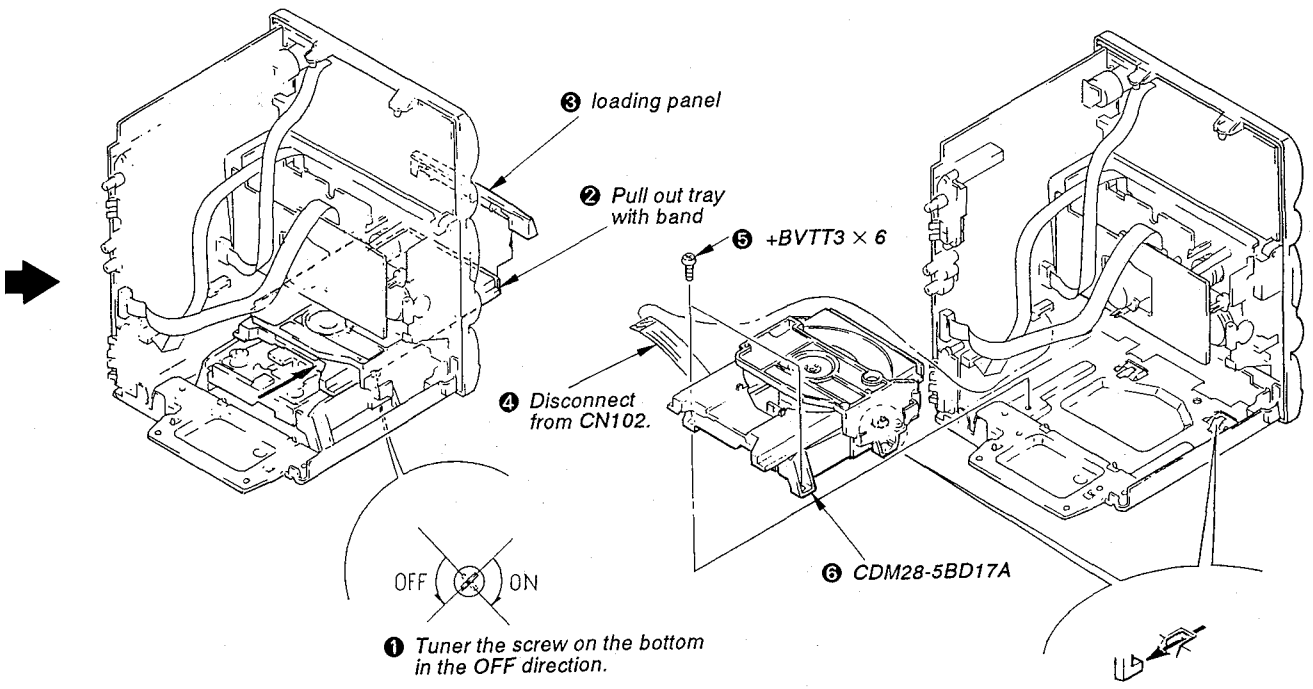
CASE



MAIN BOARD

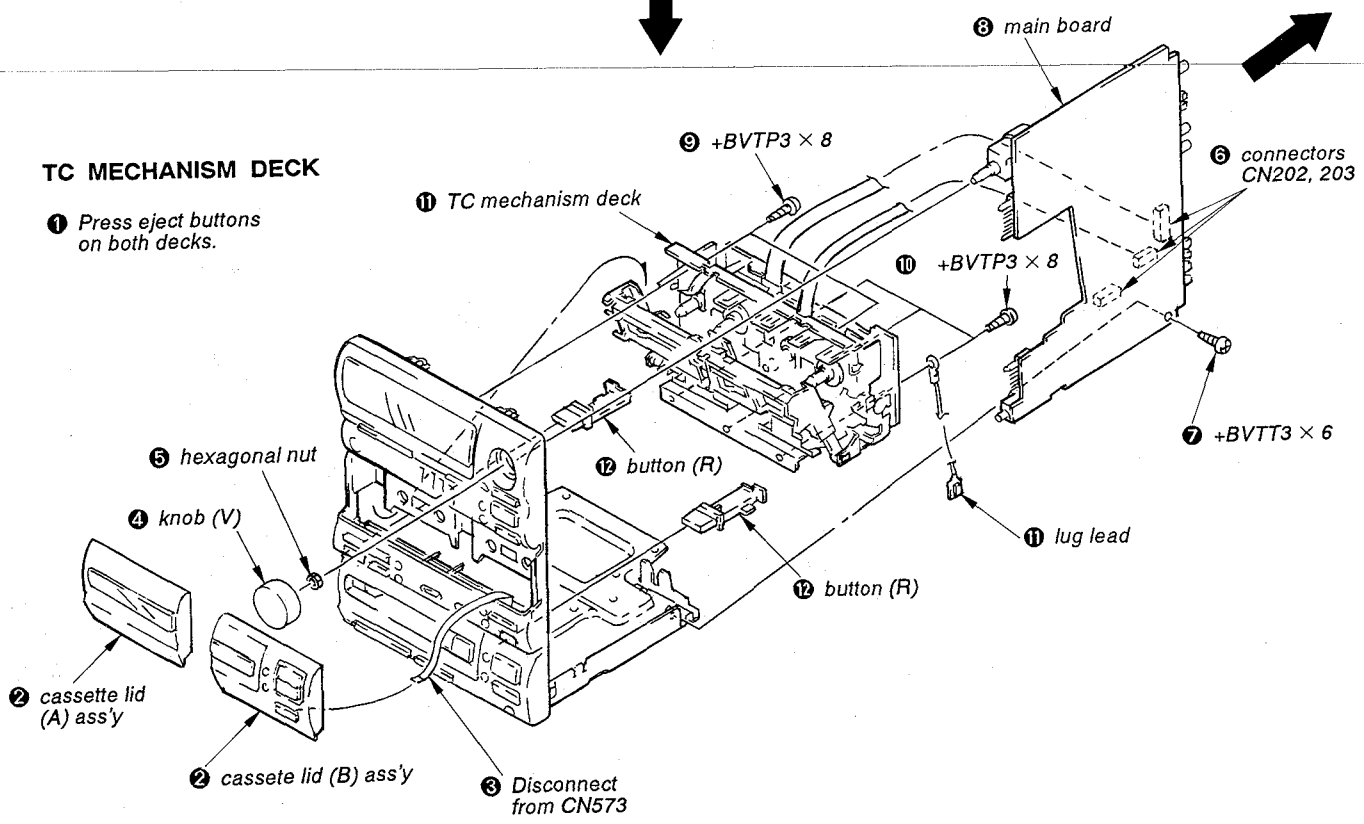


CDM28-5BD17A

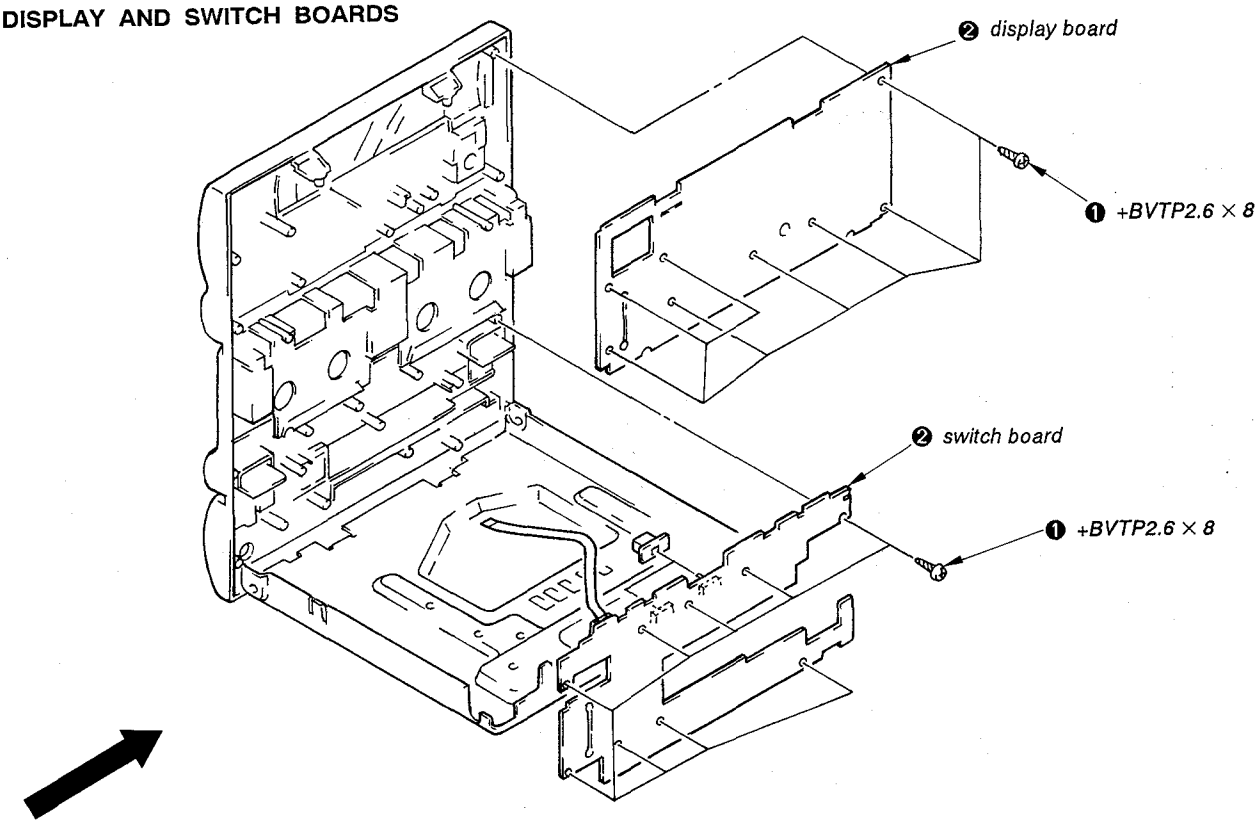

❸ loading panel
❷ Pull out tray with band
❺ +BVTT3 × 6
❹ Disconnect from CN102.
OFF
ON
❻ CDM28-5BD17A
❶ Tuner the screw on the bottom in the OFF direction.

TC MECHANISM DECK

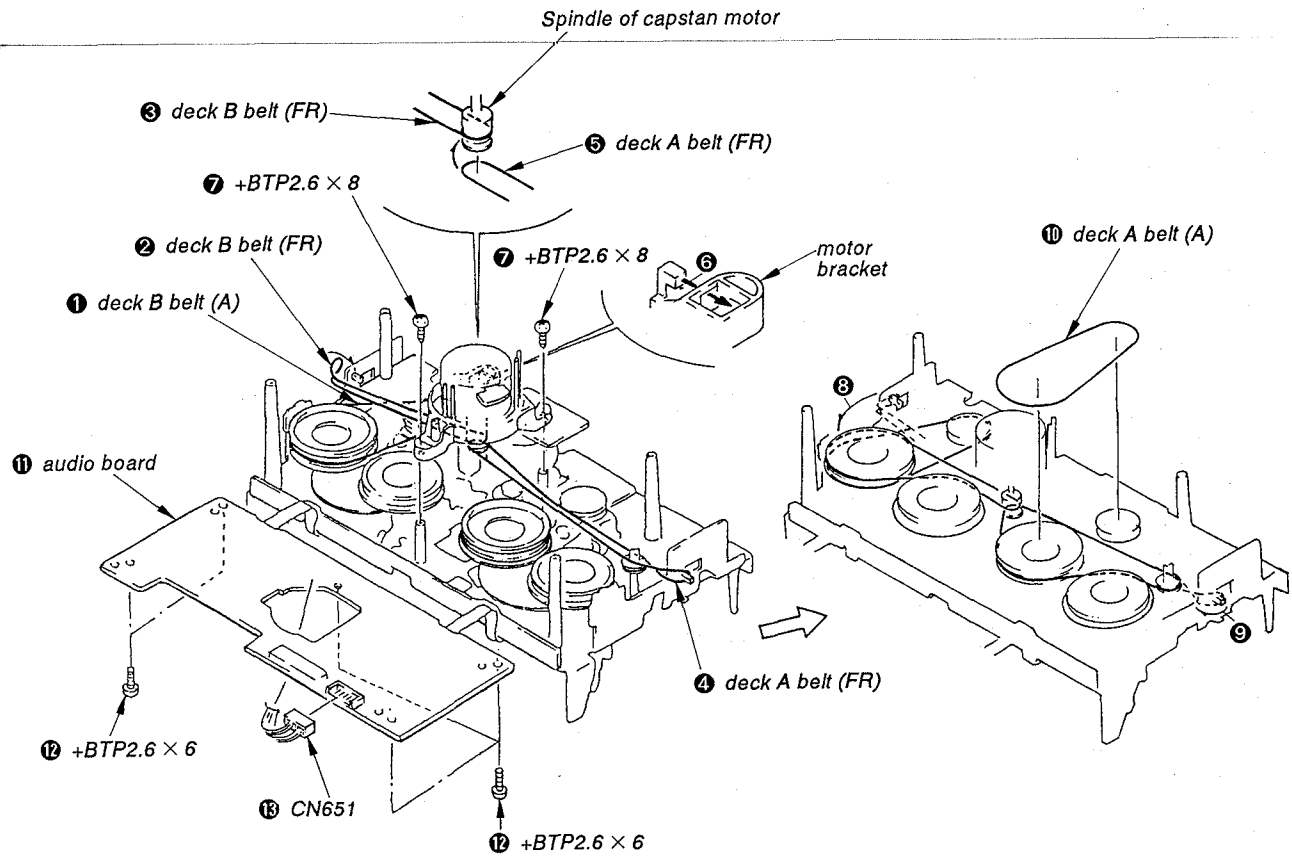
❶ Press eject buttons on both decks.



DISPLAY AND SWITCH BOARDS



BELTING, CAPSTAN MOTOR (M1) INSTALLATION



SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound tp the parts adjusted.
5. The adjustment should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Torque	Torque Meter	Meter Reading
Forward	CQ-102C	28 to 60 g•cm (0.39 to 0.83 oz•inch)
Forward back tension	CQ-102C	2 to 6 g•cm (0.028 to 0.08 oz•inch)
Reverse	CQ-102RC	28 to 60 g•cm (0.39 to 0.83 oz•inch)
Reverse back tension	CQ-102RC	2 to 6 g•cm (0.028 to 0.08 oz•inch)
FF/REW	CQ-201B	70 to 140 g•cm (0.98 to 1.94 oz•inch)

SECTION 4
ELECTRICAL ADJUSTMENTS

DECK SECTION

1. The adjustment should be performed in thepubilication (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   • Switch position
   DOLBY NR SWITCH: OFF
3. Periorto electrical adjustments, short the connector TP201 (test mode).
4. After adjustments, release short circuit on TP201.

- **Test Tape**

Tape	Contents	Use
P-4-A100	10 KHz, − 10 dB	Head Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

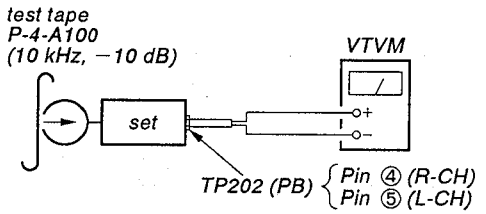
0 dB = 0.775 V

Record/Playback Head Azimuth Adjustment

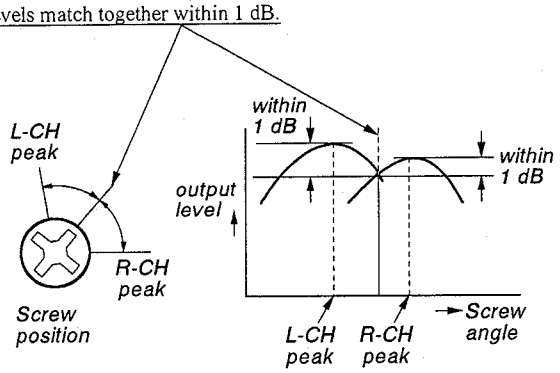
DECK A **DECK B**

Procedure:

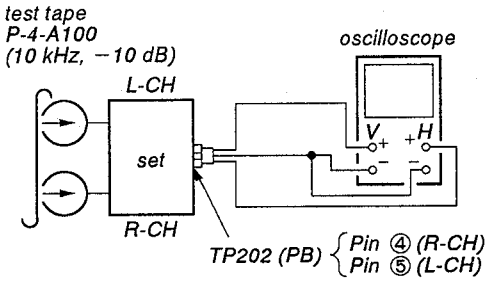
1. Forward Playback Mode
   Reverse Playback Mode

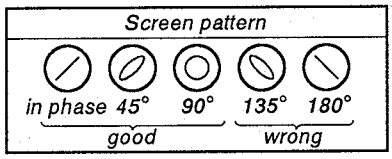


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



3. Playback Mode

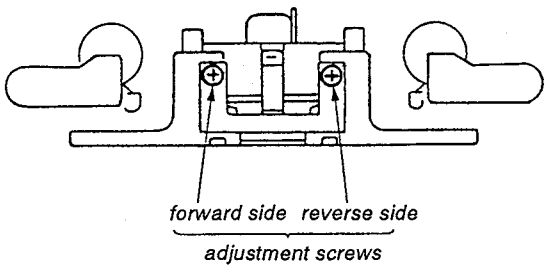




4. Change the review playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location:

– recrod/playback head (deck A and B)

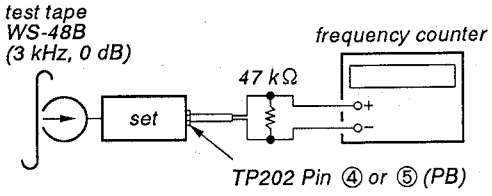


Tape Speed Adjustment

DECK A DECK B

Procedure:

– Forward Playback Mode –



(high speed adjustment)

1. Connect pin ㉘ of IC801 to ground.
2. Set to FWD playback mode.
3. Keep on pressing the SYNCRO DUBBING switch.
4. Adjust RV652 so that the frequency counter reading becomes 6,000 ± 20 Hz.
5. Disconnect pin ㉘ of IC801 connected to ground in step 1.

(normal speed adjustment)

1. Set to FWD playback mode.
2. Adjust RV601 so that the frequency counter reading beomes 3,000 ± 10 Hz.

Frequency difference between the beginning and the end of the tape should be within 3%.
Frequency differrence between the deck A and deck B the begining of the tape should be within 1.5%.

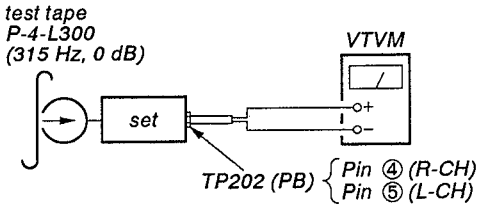
Adjustment Location: Audio board

Playback Level Adjustment

DECK A DECK B

Procedure:

Mode: Playback



Adjust deck A with RV311 (L-CH) and RV411 (R-CH), deck B with RV301 (L-CH) and RV401 (R-CH) to the adjustment level as follows.

Adjustment Level:

Playback level: – 7.7 ± 0.5 dB (0.30 to 0.34 V)
Level Diffrence between Channels: within 0.5 dB

Confirm the PB level does not change in playback mode while changing the mode from playback to stop several times.

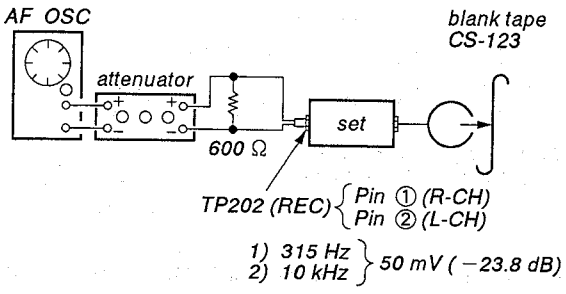
Adjustment Location: Audio board

Record Bias Adjustment

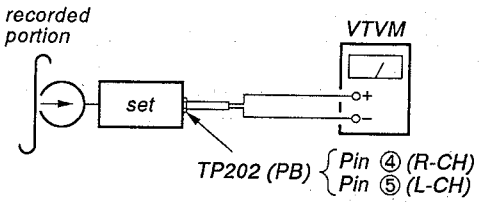
DECK B

Procedure:

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 becomes adjustment level as follows.
If these levels are out of order, adjust the RV341 (L-CH) and RV441 (R-CH) and repeat the steps 1 and 2.

Adjustment level: 10 kHz playback level relative to the 315 Hz level: 0 ± 0.5 dB

Adjustment Location: Audio board

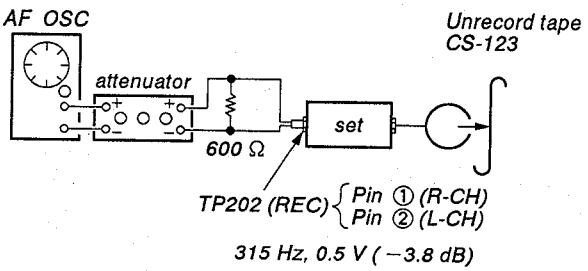
Record Level Adjustment

DECK B

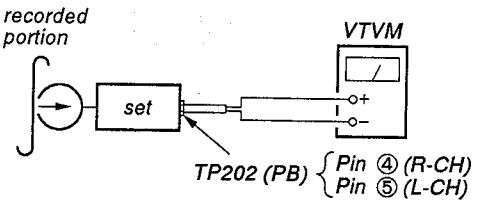
Setting:
Set function to VIDEO or Phono.

Procedure:

1. record mode



2. playback mode



Confirm playback the signal recorded in step 1 becomes adjustment level as follows.
If these levels are out of order, adjust the RV351 (L-CH) and RV451 (R-CH) and repeat the steps 1 and 2.

Adjustment level:
Playback level: − 3.8 dB ± 0.5 dB (0.47 to 0.53 V)

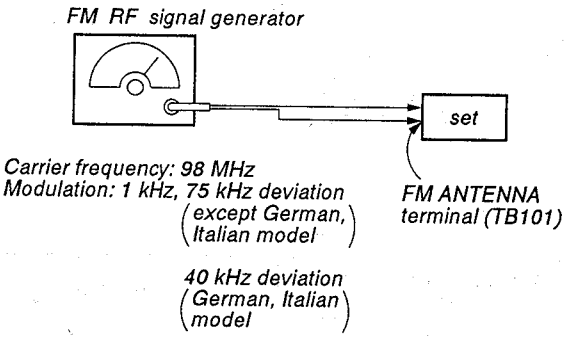
Adjustment Location: Main board

TUNER SECTION

Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

FM SECTION ADJUSTMENTS

Setting:



FM Tuned Indication Lighting Level Adjustment

Band: FM

Procedure:

1. Supply a 17.8 μV (25 dBμ) 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV51 so that the TUNED lights up.
4. Confirm that the TUNED doesn't light with FM RF signal generator output level set at 12.6 μV (22 dBμ).

AM SECTION ADJUSTMENTS

SW OSC Voltage Adjustment

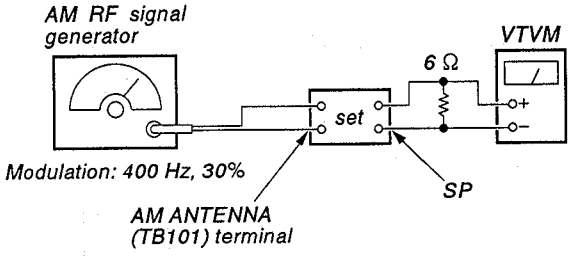
Band: SW

Procedure:

1. Connect the VOM to FE1 Pin ⑤ (VT).
2. Tune the set to 5.95 MHz.
3. Adjust T2 for 1.0 to 1.1 V reading on the VOM.
4. Tune the set to 17.90 MHz.
5. Adjust CV2 for 8.4 to 8.6 V reading on the VOM.

SW Tracking Adjustment

Band: SW



Procedure:

1. Connect the VOM to speaker terminal.
2. Adjust for a maximum reading on VOM (TB801).

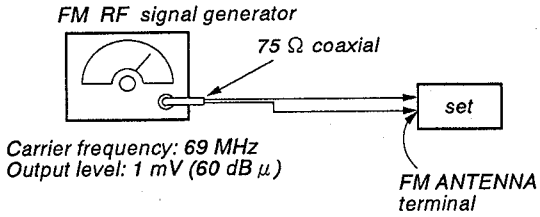
Signal generator and Set frequency	Adjustment part
7.0 MHz	T1
17.0 MHz	CV1

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM POLAR Adjustment

Setting:

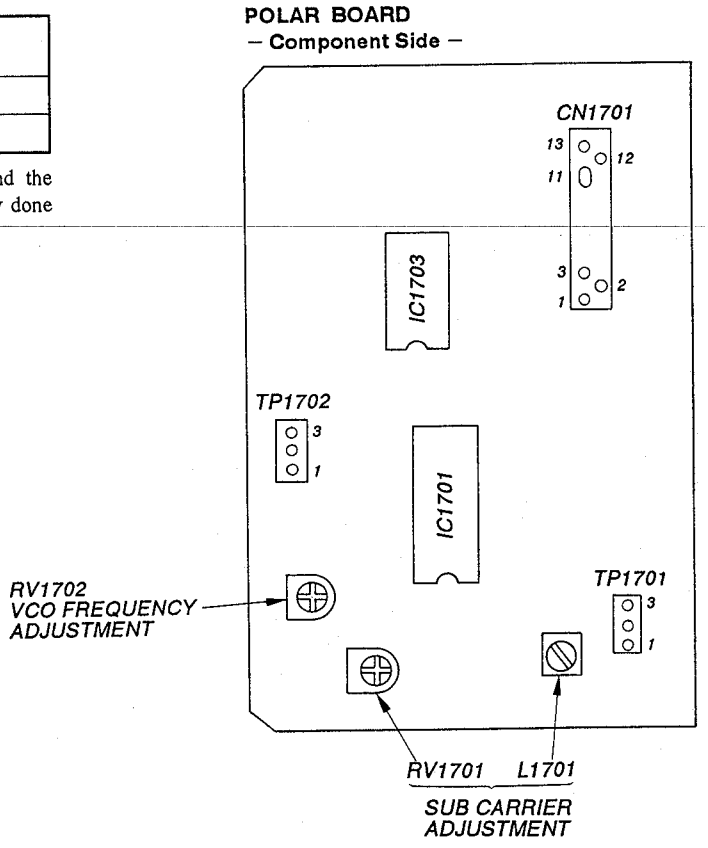
Band: FM



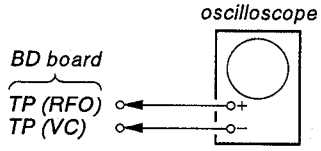
1. Connect the frequency counter to the TP1702 and adjust the RV1702 for a frequency of 31.25 kHz ± 50 Hz.
2. Connect the VTVM to the TP1701, receive the signal of 69 MHz ± 1 kHz (1 kHz dev.) and adjust the reading of the VTVM to 0 dB.
3. Set the modulation frequency of the FM RF signal generator to 31.25 kHz (10 kHz dev.) and adjust the L1701 so that the reading of the VTVM is 0 dB.
4. Adjust the RV1701 so that the reading of the VTVM to 14 dB.
5. Check that the separation between Pins ⑬ and ⑪ of the CN1701 is more than 18 dB.

Adjustment Location: POLAR board

Adjustment Location:



RF Level Check



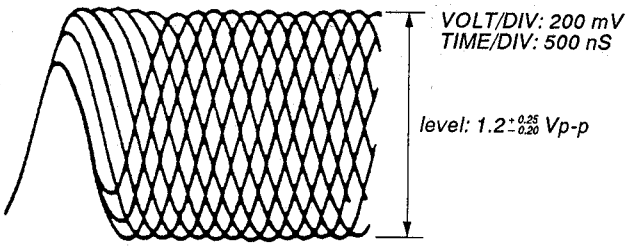
Procedure:

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

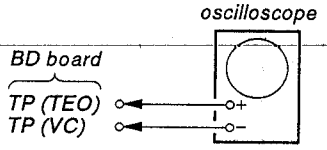
Note:

A clear RF signal waveform means that the shape " ◇ " can be clearly distinguished at the center of the waveform.

RF signal waveform



E-E Balance Check



Procedure:

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with a lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0 V, and check this level.

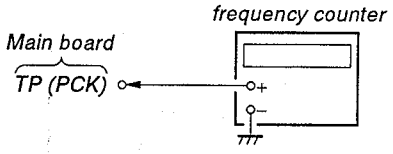
Traverse waveform

6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure:

1. Connect frequency counter to test point (PCK) with lead wire.



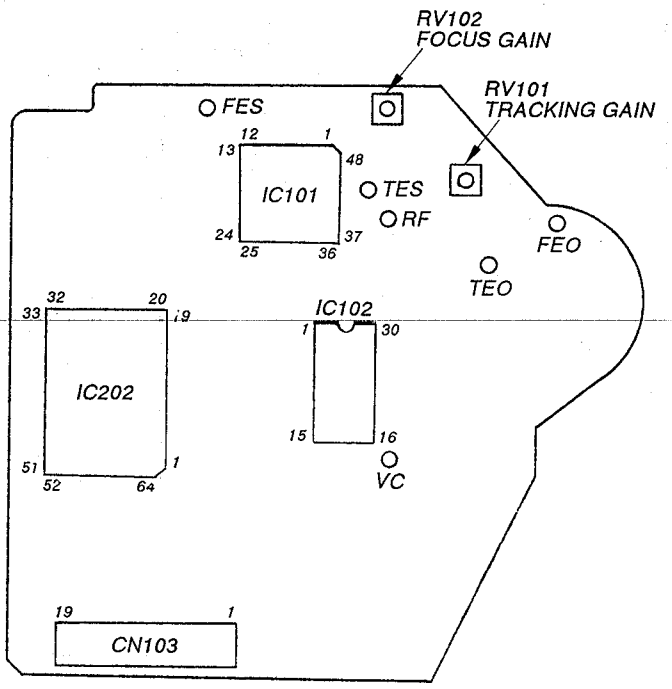
2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218 MHz.

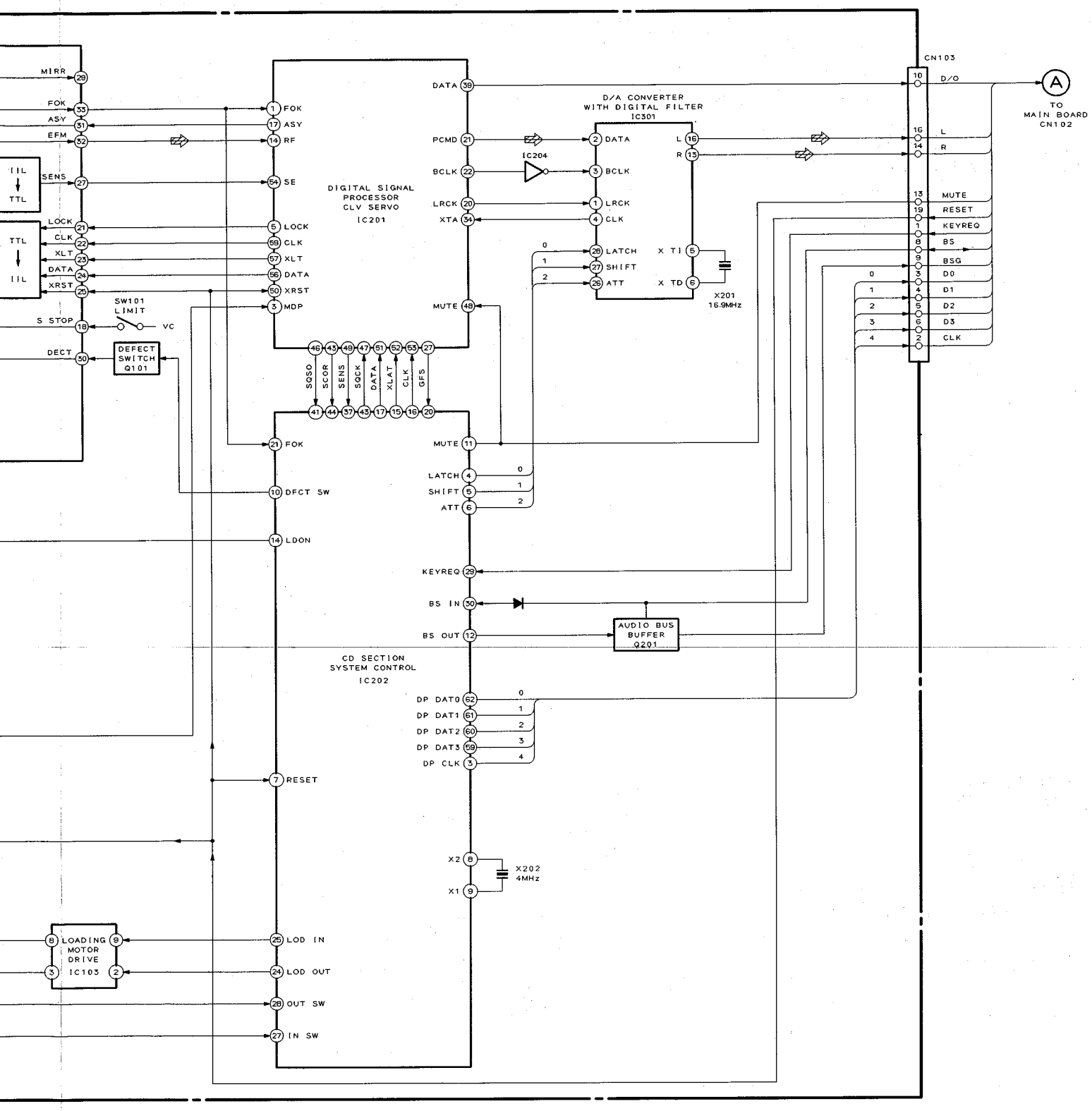
Focus/Tracking Gain

This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform, this adjustment.
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

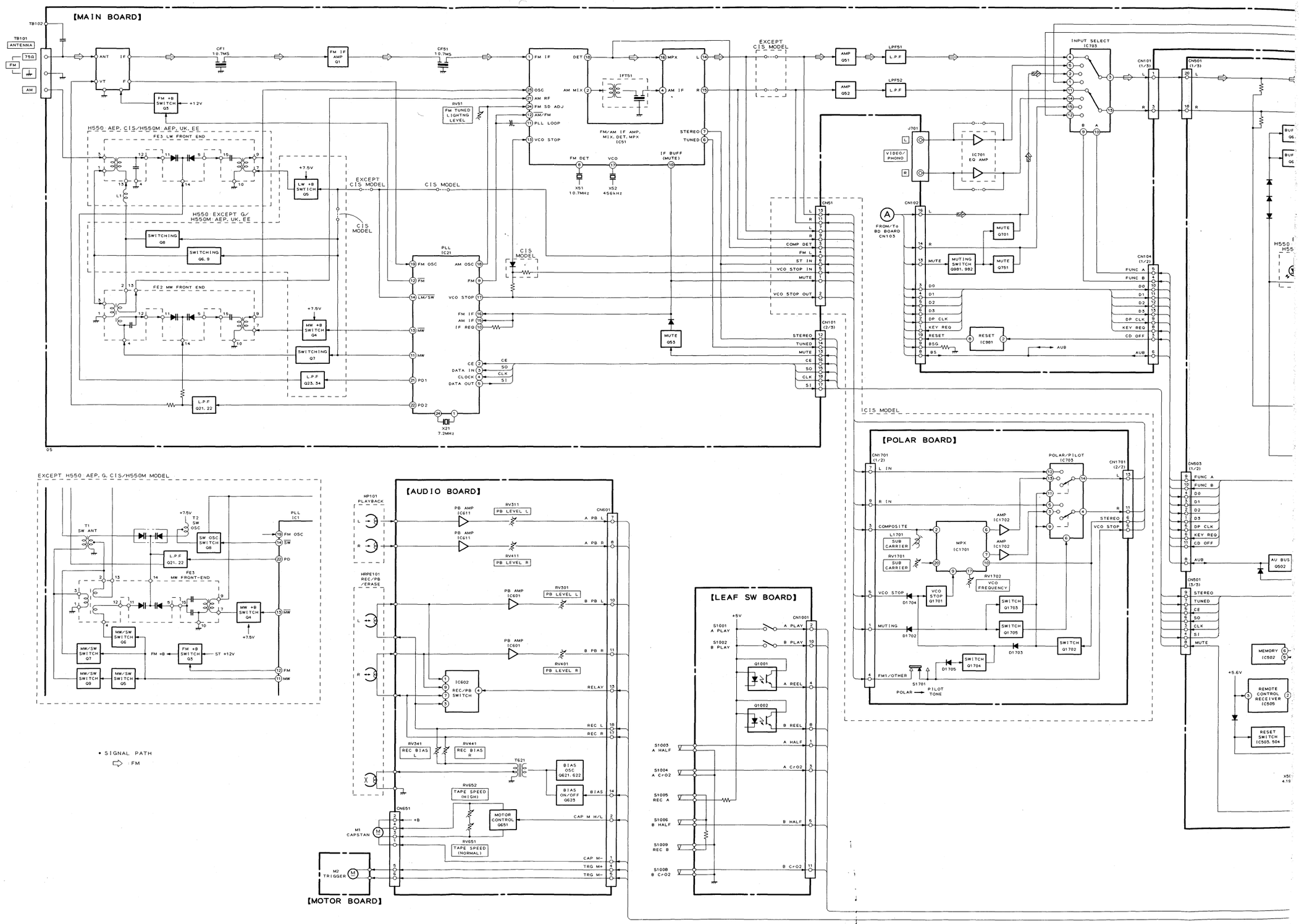
Adjustment Location:

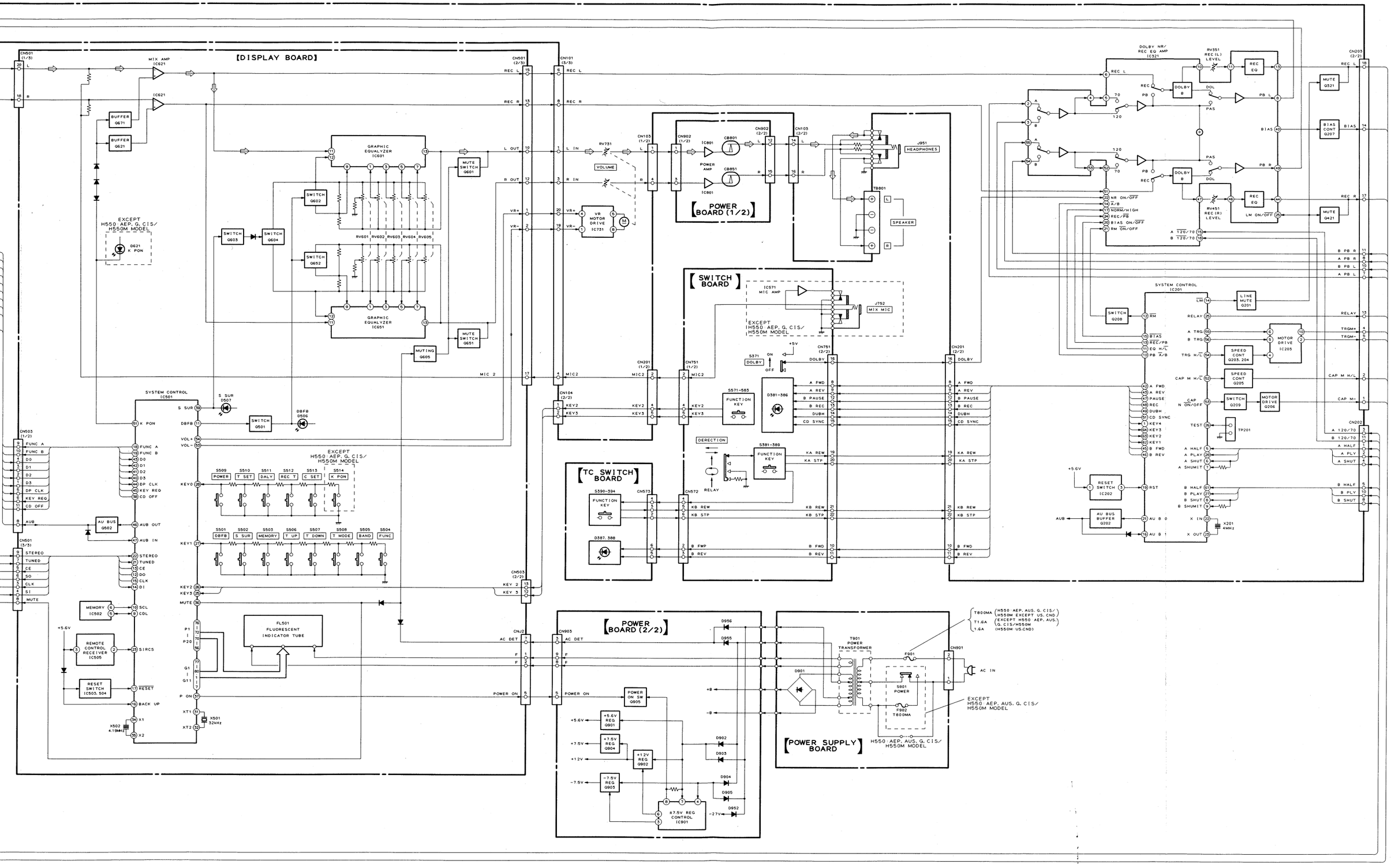
[BD BOARD] (SIDE B)




MIRR
FOK
ASY
EFM
SENS
LOCK
CLK
XLT
DATA
XRST
S STOP
DECT
SW101
LIMIT
VC
DEFECT
SWITCH
Q101
DIGITAL SIGNAL
PROCESSOR
CLV SERVO
IC201
SQSO
SCOR
SENS
SQCK
DATA
XLAT
CLK
GFS
DATA
PCMD
BCLK
LRCK
XTA
MUTE
IC204
D/A CONVERTER
WITH DIGITAL FILTER
IC301
LATCH
SHIFT
ATT
X TI
X TD
X201
16.9MHz
CN103
D/O
L
R
MUTE
RESET
KEYREQ
BS
BSG
D0
D1
D2
D3
CLK
TO
MAIN BOARD
CN102
DFCT SW
LDON
KEYREQ
BS IN
BS OUT
AUDIO BUS
BUFFER
Q201
CD SECTION
SYSTEM CONTROL
IC202
DP DAT0
DP DAT1
DP DAT2
DP DAT3
DP CLK
RESET
X2
X1
X202
4MHz
LOADING
MOTOR
DRIVE
IC103
LOD IN
LOD OUT
OUT SW
IN SW

5-2. OTHER SECTION BLOCK DIAGRAM




【DISPLAY BOARD】
【SWITCH BOARD】
【TC SWITCH BOARD】
【POWER BOARD (1/2)】
【POWER BOARD (2/2)】
【POWER SUPPLY BOARD】
MIX AMP IC621
BUFFER Q671
BUFFER Q621
GRAPHIC EQUALYZER IC601
GRAPHIC EQUALYZER IC651
SWITCH Q602
SWITCH Q603
SWITCH Q604
SWITCH Q652
MUTE SWITCH Q601
MUTE SWITCH Q651
MUTING Q605
EXCEPT H550 AEP, G, CIS/ H550M MODEL
D621 K PON
RV601 RV602 RV603 RV604 RV605
VOLUME
RV731
VR MOTOR DRIVE IC731
POWER AMP
IC801
CB801
CB851
J951 HEADPHONES
TB801
SPEAKER
IC571 MIC AMP
J752 MIX MIC
S571 DOLBY
S571-583 FUNCTION KEY
D581-586
DERECTION
RELAY
S581-589 FUNCTION KEY
S590-594 FUNCTION KEY
D587, 588
SYSTEM CONTROL IC501
S SUR D507
SWITCH Q501
DBFB D506
EXCEPT H550 AEP, G, CIS/ H550M MODEL
S509 POWER
S510 T SET
S511 DALY
S512 REC T
S513 C SET
S514 K PON
S501 DBFB
S502 S SUR
S503 MEMORY
S506 T UP
S507 T DOWN
S508 T MODE
S505 BAND
S504 FUNC
AU BUS Q502
MEMORY IC502
REMOTE CONTROL RECEIVER IC505
RESET SWITCH IC503, 504
X501 32kHz
X502 4.19MHz
FL501 FLUORESCENT INDICATOR TUBE
DOLBY NR/ REC EQ AMP IC321
RV351 REC (L) LEVEL
RV451 REC (R) LEVEL
DOLBY B
REC EQ
SYSTEM CONTROL IC201
LINE MUTE Q201
MOTOR DRIVE IC205
SPEED CONT Q205, 204
SPEED CONT Q205
SWITCH Q209
MOTOR DRIVE Q206
TP201
RESET SWITCH IC202
AU BUS BUFFER Q202
X201 4MHz
MUTE Q521
BIAS CONT Q207
MUTE Q421
SWITCH Q200
POWER ON SW Q905
+5.6V REG Q901
+7.5V REG Q904
+12V REG Q902
-7.5V REG Q903
±7.5V REG CONTROL IC901
T901 POWER TRANSFORMER
F901
S901 POWER
F902 T800MA
D901
T800MA (H550 AEP, AUS, G, CIS/ H550M EXCEPT US, CND/ (EXCEPT H550 AEP, AUS, G, CIS/H550M (H550M US, CND)
T1.6A
1.6A
EXCEPT H550 AEP, AUS, G, CIS/ H550M MODEL
H550 AEP, AUS, G, CIS/ H550M MODEL
AC IN

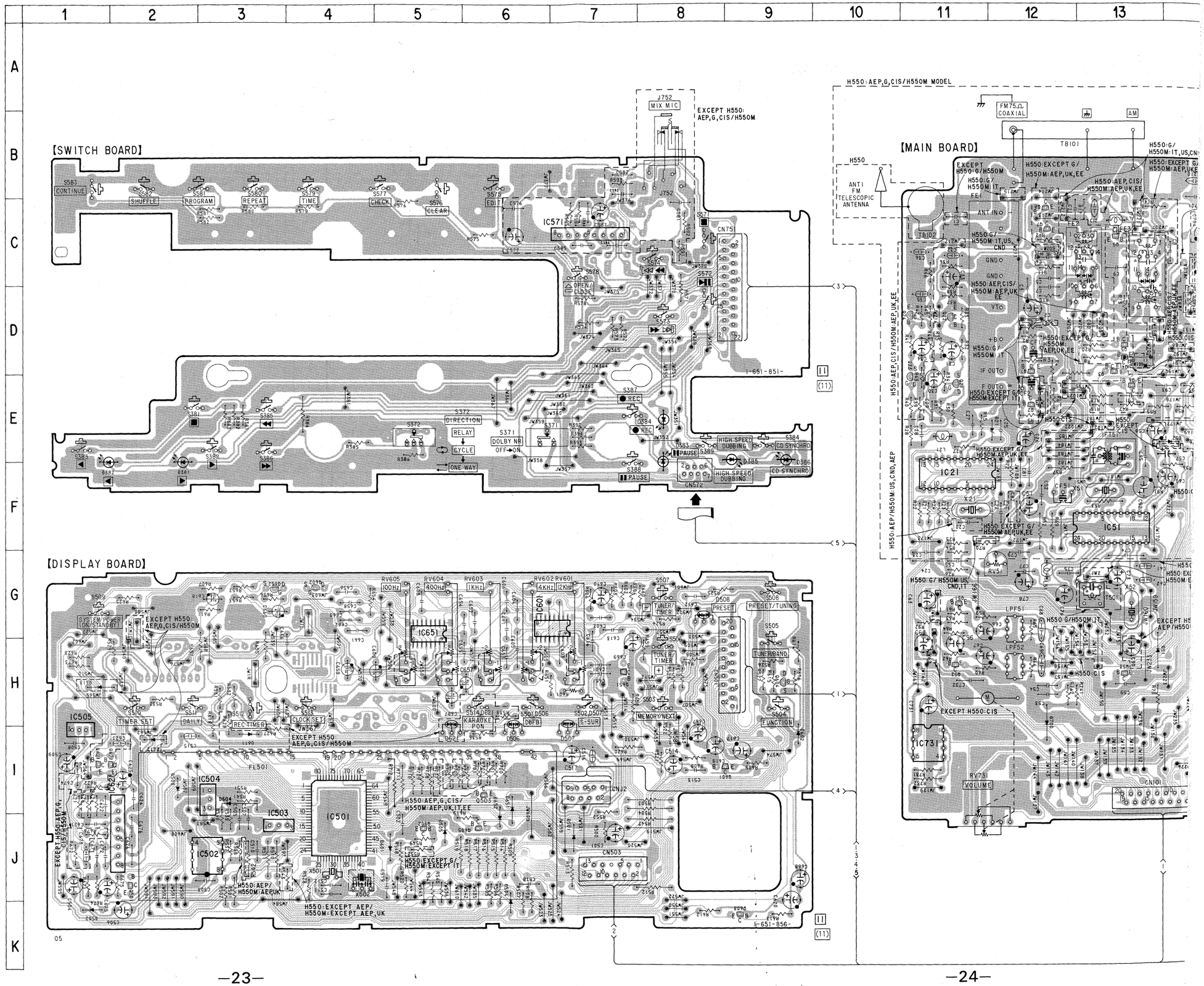
5-3. MAIN, DISPLAY SECTION PRINTED WIRING BOARDS

• See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1 (*1)	C-27	IC701	C-15
D21	E-12	IC703	E-16
D21 (*1)	E-26	IC731	I-11
D51	H-13	IC801	J-28
D52	E-14	IC901	I-31
D201	E-19	IC981	E-17
D202	F-20		
D321	E-16	Q1	D-12
D322	E-17	Q1 (*1)	D-26
D381	E-2	Q2	E-12
D382	E-1	Q3	D-13
D383	E-8	Q3 (*1)	D-27
D384	E-8	Q4	D-13
D385	E-9	Q4 (*1)	D-27
D386	E-9	Q5	D-13
D387	H-16	Q5 (*1)	D-27
D388	I-16	Q6	E-13
D501	J-7	Q6 (*1)	D-27
D502	J-1	Q7	C-12
D503	I-2	Q7 (*1)	B-26
D504	J-6	Q8	C-12
D505	J-5	Q8 (*1)	B-26
D506	H-6	Q9	C-13
D507	H-7	Q9 (*1)	C-27
D508	G-8	Q15 (*1)	B-27
D601	J-5	Q21	E-11
D602	I-9	Q21 (*1)	D-25
D604	I-3	Q22	D-11
D611	H-3	Q22 (*1)	C-25
D612	I-2	Q23	D-11
D613	H-1	Q24	D-11
D621	H-5	Q51	G-11
D651	I-6	Q52	H-11
D652	I-6	Q53	H-13
D700	H-12	Q201	F-20
D821	I-29	Q202	E-20
D901	I-25	Q203	D-21
D902	I-27	Q204	D-20
D903	H-27	Q205	D-20
D904	H-27	Q206	D-20
D905	H-27	Q207	B-16
D906	J-26	Q208	G-20
D921	H-31	Q209	D-21
D951	H-27	Q321	D-14
D952	H-27	Q421	D-14
D953	G-28	Q501	J-2
D954	G-29	Q502	J-5
D955	H-29	Q503	I-6
D956	H-29	Q601	I-8
		Q602	G-4
IC21	F-11	Q603	J-9
IC21 (*1)	E-25	Q604	H-9
IC51	F-13	Q605	J-6
IC51 (*1)	F-27	Q621	I-1
IC201	G-20	Q651	H-7
IC202	F-20	Q652	G-3
IC203	D-21	Q671	I-1
IC321	D-17	Q701	E-15
IC501	I-4	Q751	F-15
IC502	J-3	Q901	J-26
IC503	J-3	Q902	J-30
IC504	I-3	Q903	J-30
IC505	H-1	Q904	H-31
IC571	C-7	Q905	I-31
IC601	G-6	Q981	F-17
IC621	J-2	Q982	F-17
IC651	G-5		

*1: Used on the models except H550: AEP, G, CIS/H550M model.



【MAIN BOARD】

【TC SWITCH BOARD】

【POWER SUPPLY BOARD】

EXCEPT H550:AEP,G,CIS/H550M MODEL

H550:AEP,G,CIS/H550M MODEL

J752 MIX MIC

EXCEPT H550: AEP,G,CIS/H550M

H550 ANT FM TELESCOPIC ANTENNA

FM75Ω COAXIAL

AM

TB101

J701 MD/PHONO / VIDEO/AUX

H550:AEP,G/ H550M:AEP,UK,EE,IT

H550:EXCEPT AEP,G/ H550M:US,CND

L -1 R -2

Ⓐ TO AUDIO BOARD CN601 (Page 46)

TB801 R L

SPEAKER IMPEDANCE USE 6-16Ω

Ⓑ TO LEAF SW BOARD CN1001 (Page 45)

Ⓓ TO POLAR BOARD CN1701 (Page 35)

Ⓒ TO BD BOARD CN103 (Page 38)

J951 HEAD PHONES

S901 VOLTAGE SELECTOR 220V-240V ← 110V-120V

T901 POWER TRANSFORMER

F901 F902

I-651-851-

I-651-852-

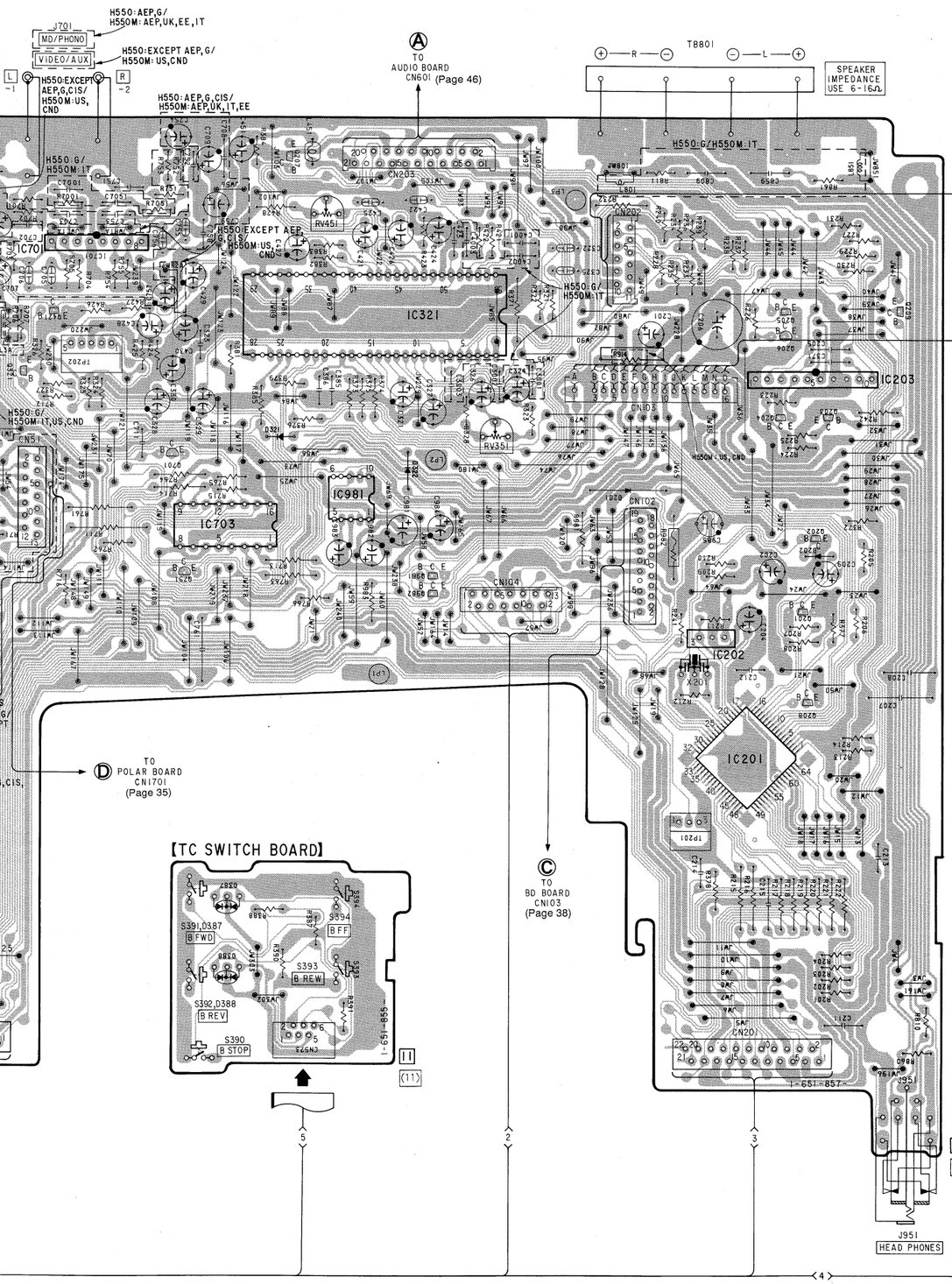
I-651-855-

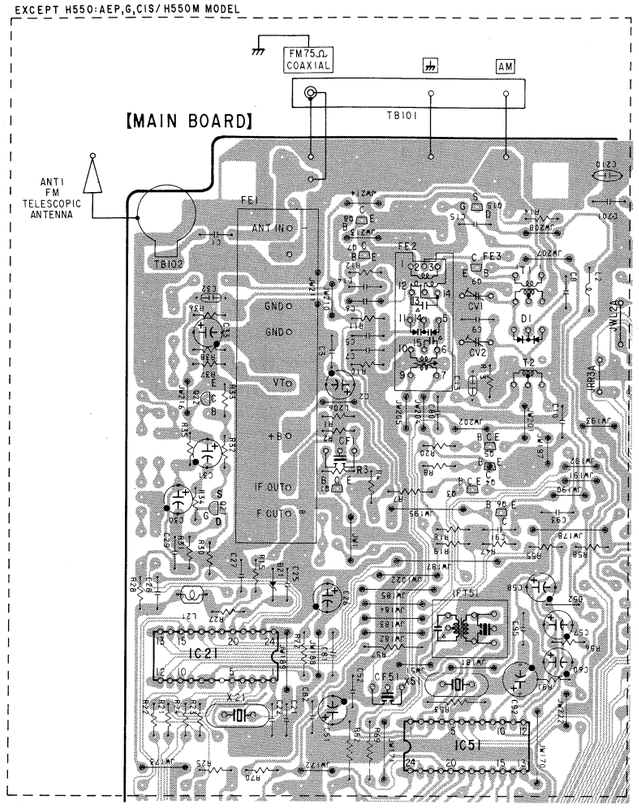
I-651-856-

I-651-857-

(11)

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

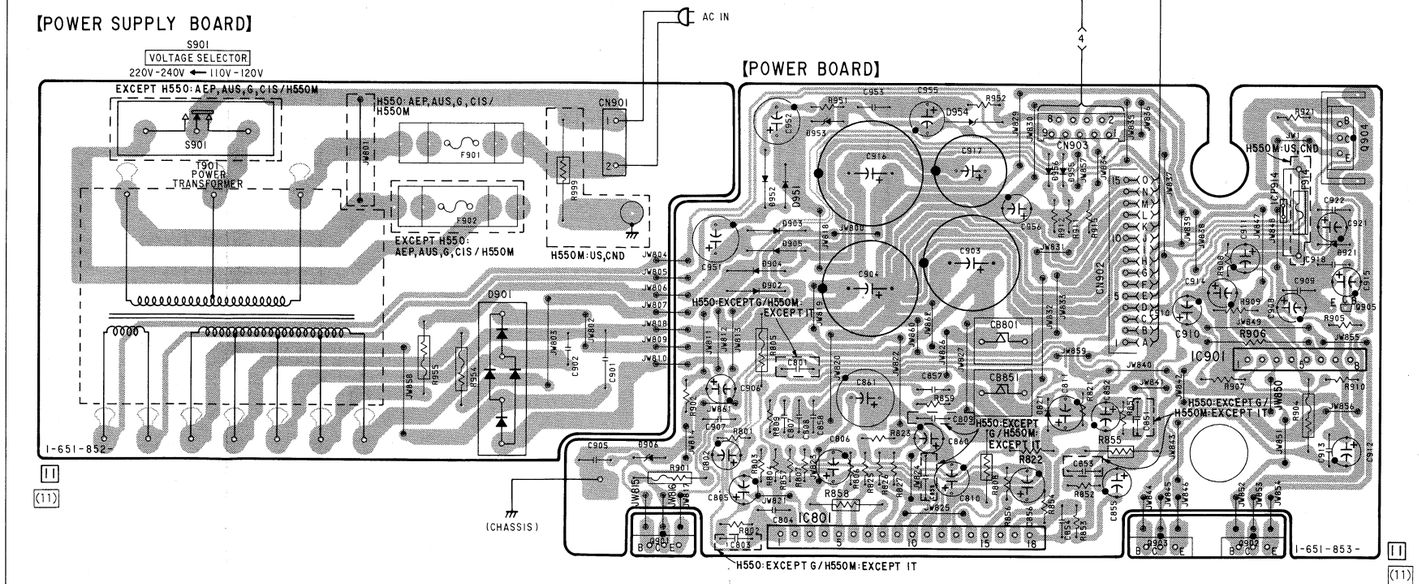




Note:

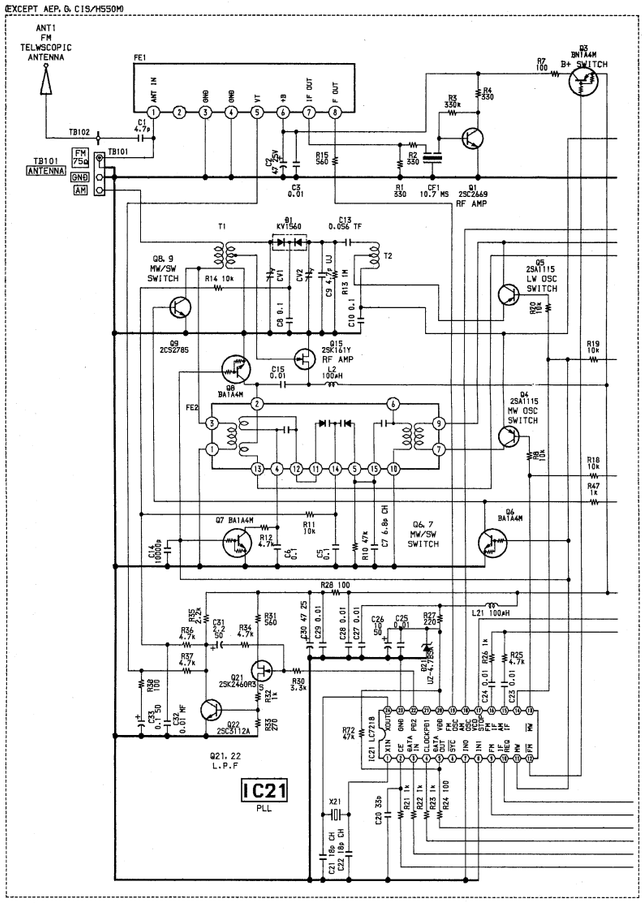
- ○——— : parts extracted from the component side.
- △ : internal component.
- Abbreviations

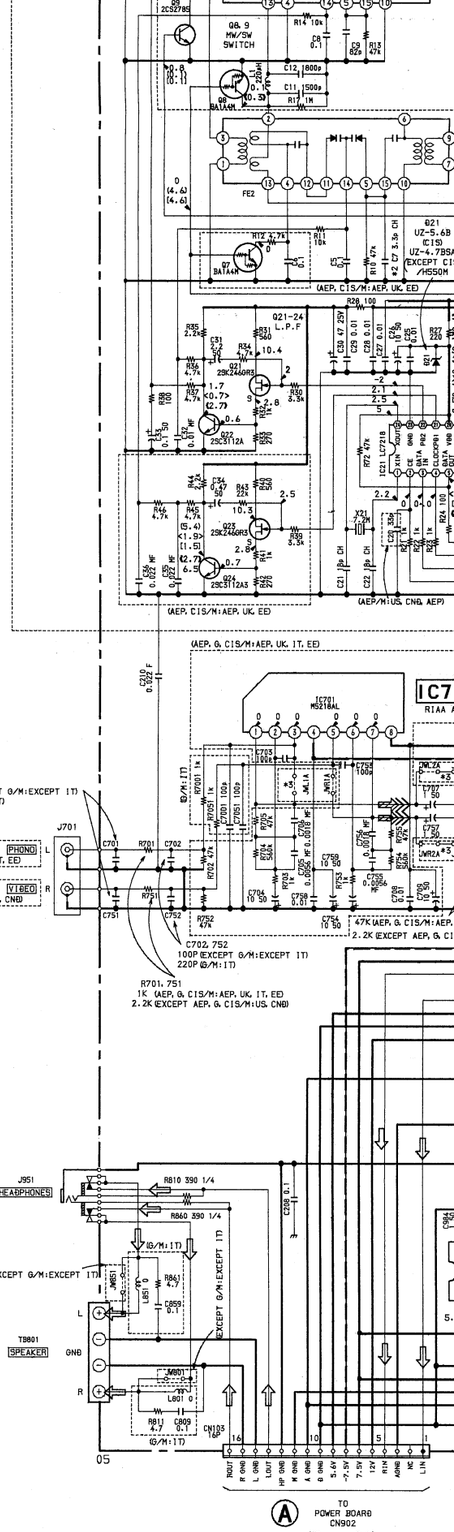
AUS	: Australian	IT	: Italian
CND	: Canadian	JE	: Tourist
EA	: Saudi Arabia	MX	: Mexican
EE	: East European	MY	: Malaysia
G	: German	SP	: Singapore



5-4. MAIN SECTION SCHEMATIC DIAGRAM

• See pages 31 to 34 for Display Section Schematic Diagram and page 49 for IC Block Diagrams.





Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ⚠ : fusible resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B + Line.
- ▬ ▬ : B − Line.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  - no mark : FM (Common)
  - ( ) : MW
  - < > : LW
  - [ ] : DECK B REC
  - (( )) : DECK B PB
  - ✱ : Impossible to measure
- Voltages are taken with a VOM (10 MΩ/V). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ⇨ : FM
  - ⇨ : PB (DECK B)
  - ⇨ : REC (DECK B)
  - ⇨ : CD
  - ⇨ : PHONO
- Abbreviations

AUS : Australian	IT : Italian
CND : Canadian	JE : Tourist
EA : Saudi Arabia	MX : Mexican
EE : East European	MY : Malaysia
G : German	SP : Singapore

12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28

IC51 FM/AM IF, DET, MPX

IC21 PLL

IC701 RIAA AMP

IC731 MOTOR DRIVE

IC703 FUNCTION SWITCH

IC981 CD RESET

IC321 REC/PB EQ AMP, DOLBY BIAS SWITCH

IC202 RESET

IC203 TRIGER MOTOR DRIVE

IC201 TC SYSTEM CONTROL

Q53 MUTE SWITCH

Q703 CD MUTE

Q981, 982 CD MUTE SWITCH

Q203 TRIGGER MOTOR H/L SWITCH

Q209 CAPSTAN MOTOR ON/OFF SWITCH

Q205 CAPSTAN MOTOR H/L SWITCH

Q204, 206 CAPSTAN MOTOR SWITCH

Q1, 2 RF AMP

Q51, 52 POST AMP

Q5 LW OSC SWITCH

Q4 MW OSC SWITCH

Q6, 7 MW/SW SWITCH

Q207 BUFFER

RV51 FM TUNED IND. LIGHTING LEVEL ADJ.

RV731 VOLUME

RV451 REC LEVEL R ADJ.

RV351 REC LEVEL L ADJ.

TS01

LPF

LPF51

*1

	IC21 (14)
CIS	FM L
OTHER	LW/SW

*2 C7
3.3P (AEP, CIS/M:EXCEPT US, CNB, IT)
5.6P (G)
4.7P (M:US, CNB, IT)

*3 JWL1A, JWR1A, JWL2A, JWR2A, JWL3A, JWR3A
(EXCEPT AEP, G, CIS/M:US, CNB)

(F) TO AUDIO BOARD CN601 (Page 44)

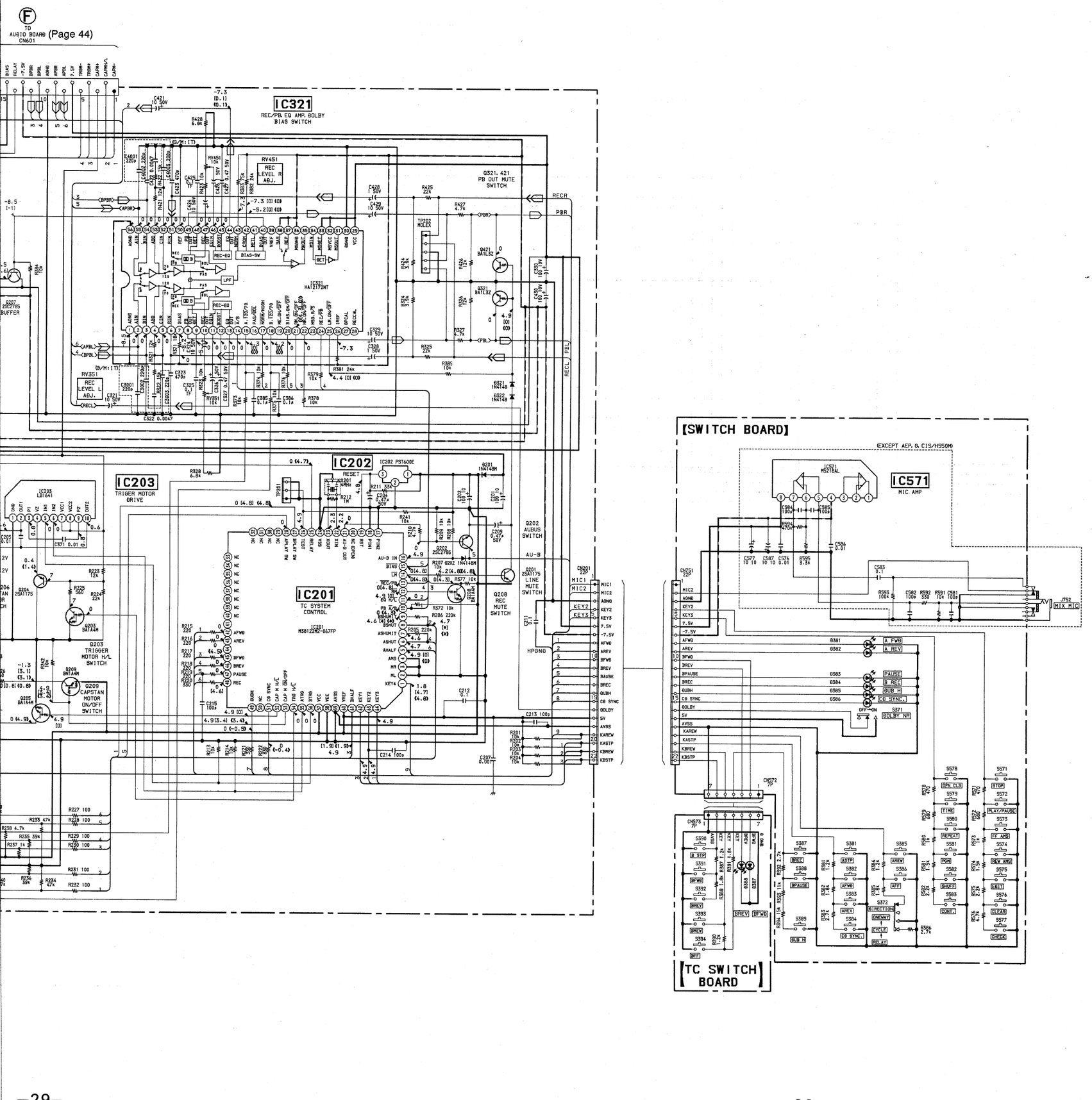
(G) TO POLAR BOARD CN1701 (Page 36)

(B) TO BB BOARD CN103 (Page 41)

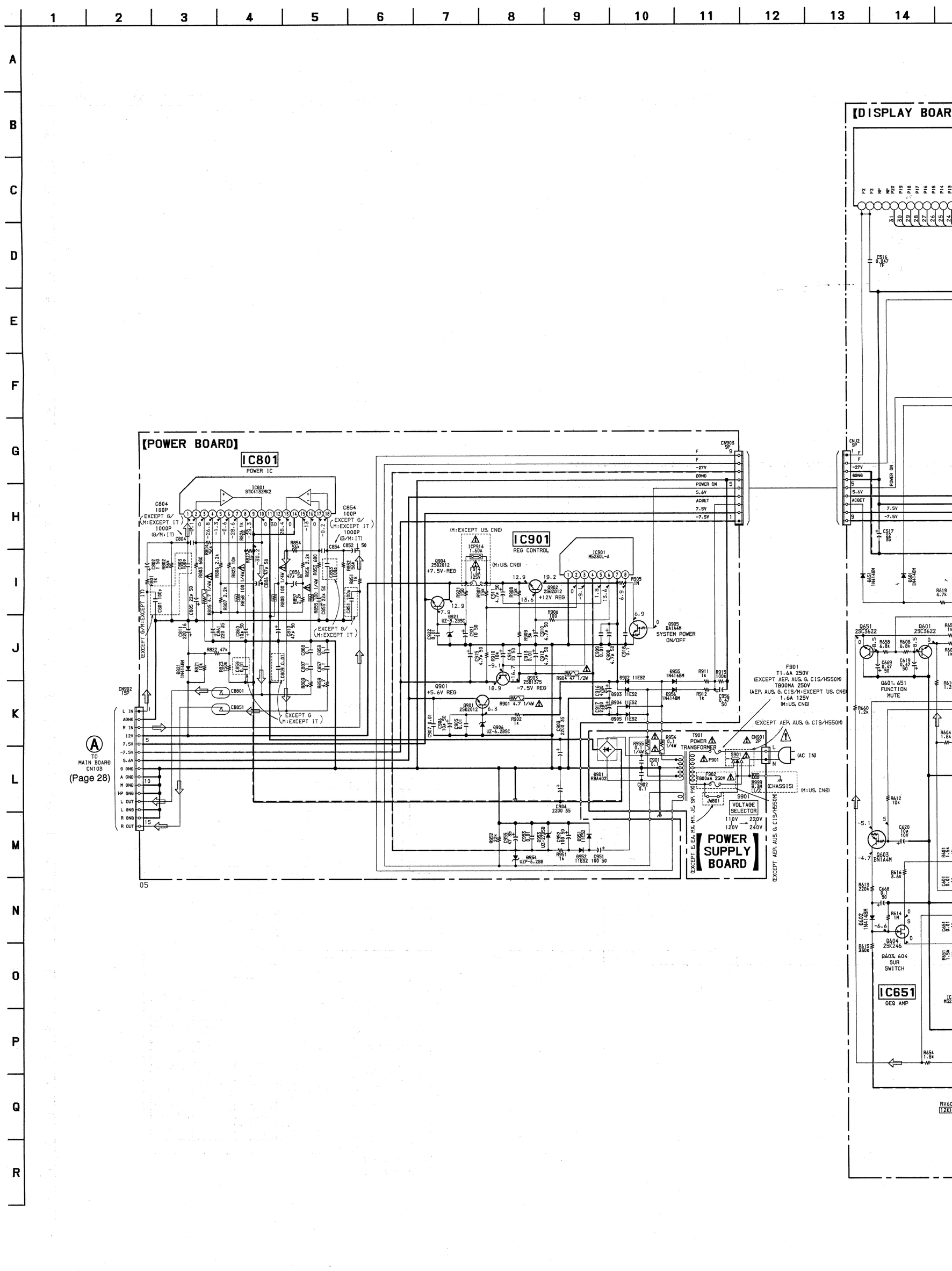
(C) TO DISPLAY BOARD CN501 (Page 34)

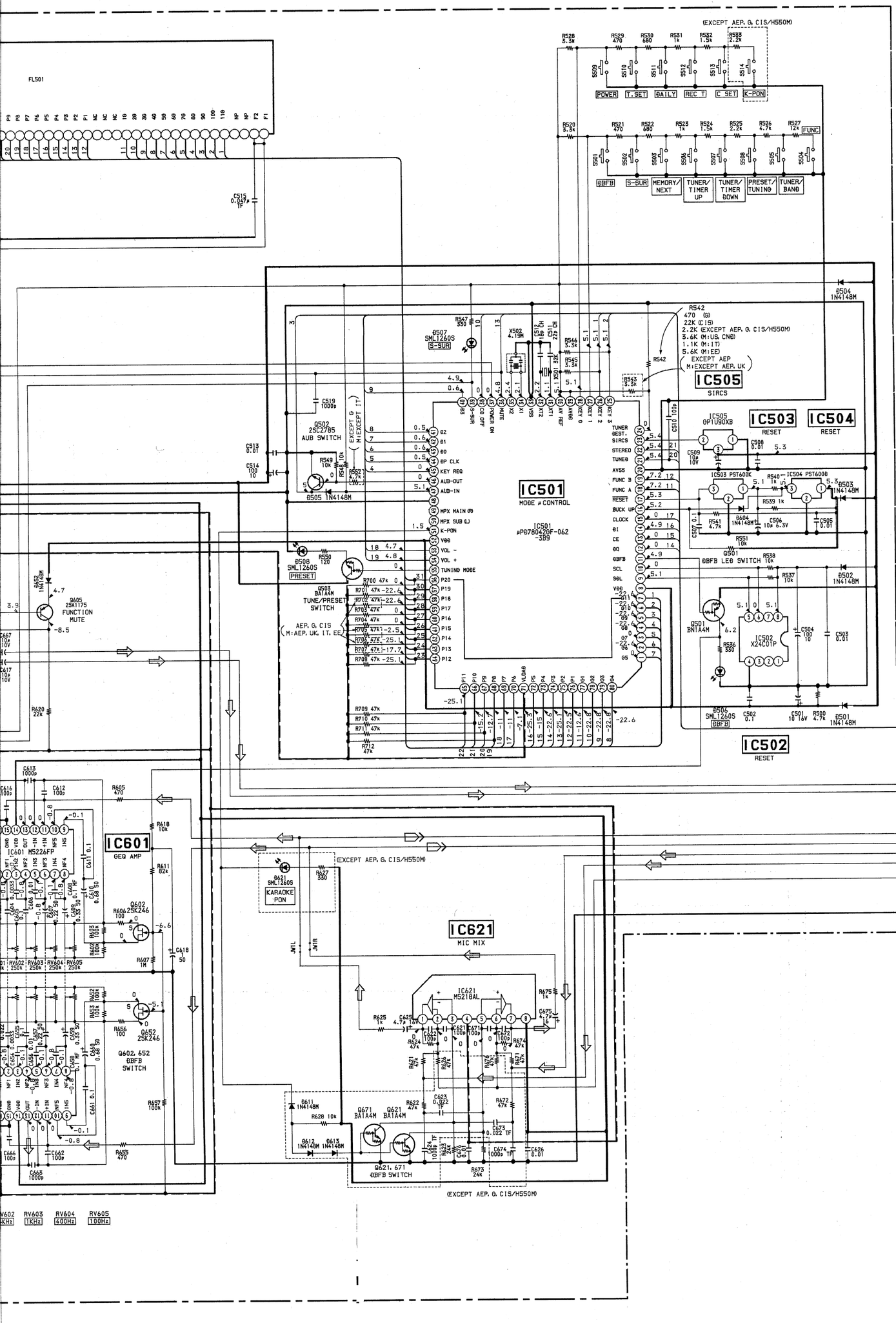
(D) TO DISPLAY BOARD CN503 (Page 34)

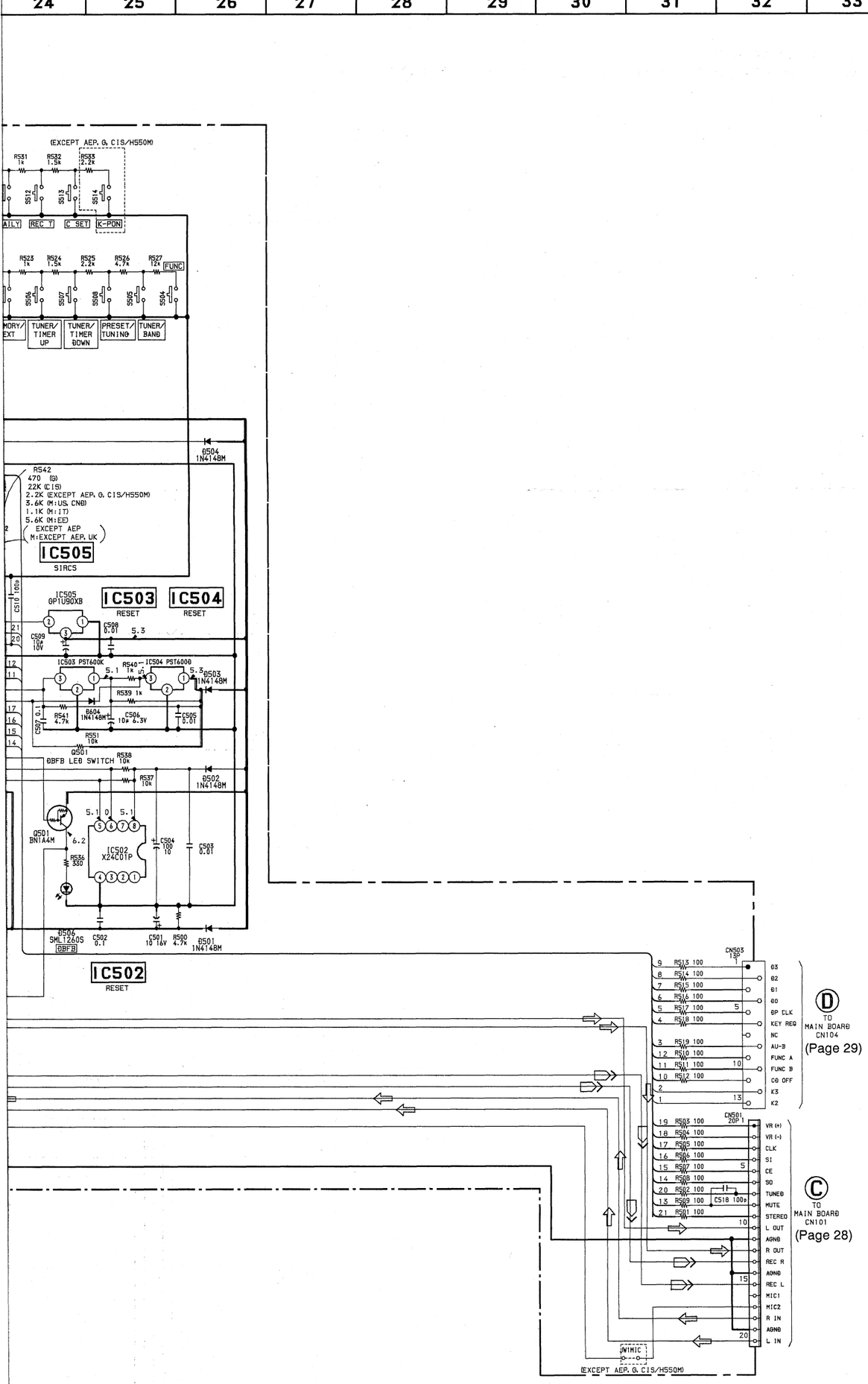
(E) TO LEAF SW BOARD CN1001 (Page 44)


F
TO AUBIO BOARD (Page 44) CN601
IC321
REC/PB EQ AMP, DOLBY BIAS SWITCH
RV451 REC LEVEL R ADJ.
RV351 REC LEVEL L ADJ.
Q321, 421 PB OUT MUTE SWITCH
IC202 RESET
IC203 TRIGER MOTOR DRIVE
IC201 TC SYSTEM CONTROL
Q202 AUBUS SWITCH
Q208 REC MUTE SWITCH
Q201 LINE MUTE SWITCH
Q203 TRIGGER MOTOR H/L SWITCH
Q209 CAPSTAN MOTOR ON/OFF SWITCH
【SWITCH BOARD】
(EXCEPT AEP, & CIS/H550M)
IC571 MIC AMP
【TC SWITCH BOARD】

5-5. DISPLAY SECTION SCHEMATIC DIAGRAM




(EXCEPT AEP, G, CIS/H550M)
POWER
T.SET
DAILY
REC T
C SET
K-PON
DBFB
S-SUR
MEMORY/ NEXT
TUNER/ TIMER UP
TUNER/ TIMER DOWN
PRESET/ TUNING
TUNER/ BAND
FUNC
IC505
SIRCS
IC503
RESET
IC504
RESET
IC501
MODE & CONTROL
IC501 μPD780426F-062 -3B9
IC502
RESET
IC601
GEQ AMP
IC601 M5226FP
IC621
MIC MIX
IC621 M5218AL
Q502 2SC2785 AUB SWITCH
Q505 1N4148M
Q508 SML1260S PRESET
Q503 BA1A4M TUNE/PRESET SWITCH
Q506 2SA1175 FUNCTION MUTE
Q507 SML1260S S-SUR
Q501 DBFB LED SWITCH
Q501 BN1A4M
Q502 SML1260S DBFB
Q504 1N4148M
Q503 1N4148M
Q502 1N4148M
Q501 1N4148M
AEP, G, CIS (M:AEP, UK, IT, EE)
(EXCEPT AEP, G, CIS/H550M)
KARAOKE PON
Q602 2SK246
Q652 2SK246
Q602, 652 DBFB SWITCH
Q671 BA1A4M
Q621 BA1A4M
Q621, 671 DBFB SWITCH
RV602 5KHz
RV603 1KHz
RV604 400Hz
RV605 100Hz
RS42
470 (G)
22K (CIS)
2.2K (EXCEPT AEP, G, CIS/H550M)
3.6K (M:US, CND)
1.1K (M:IT)
5.6K (M:EE)
EXCEPT AEP
M:EXCEPT AEP, UK



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ⏦ : fusible resistor.

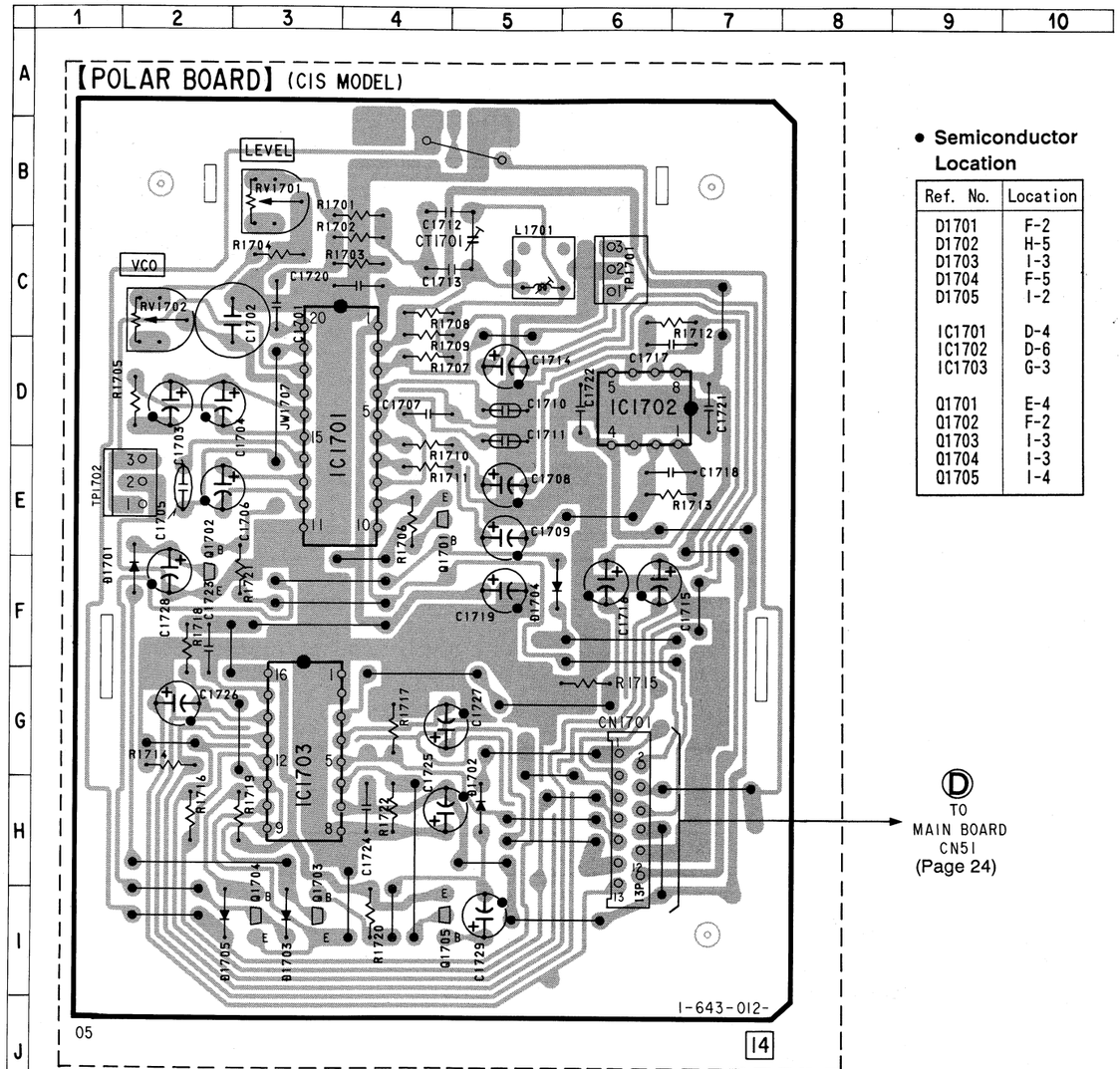
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B + Line.
- ▬ ▬ ▬ : B − Line.
- ▭ : panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ∗ : Impossible to measure
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : REC (DECK B)
- Abbreviations

AUS	: Australian	IT	: Italian
CND	: Canadian	JE	: Tourist
EA	: Saudi Arabia	MX	: Mexican
EE	: East European	MY	: Malaysia
G	: German	SP	: Singapore

5-6. POLAR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

• See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.

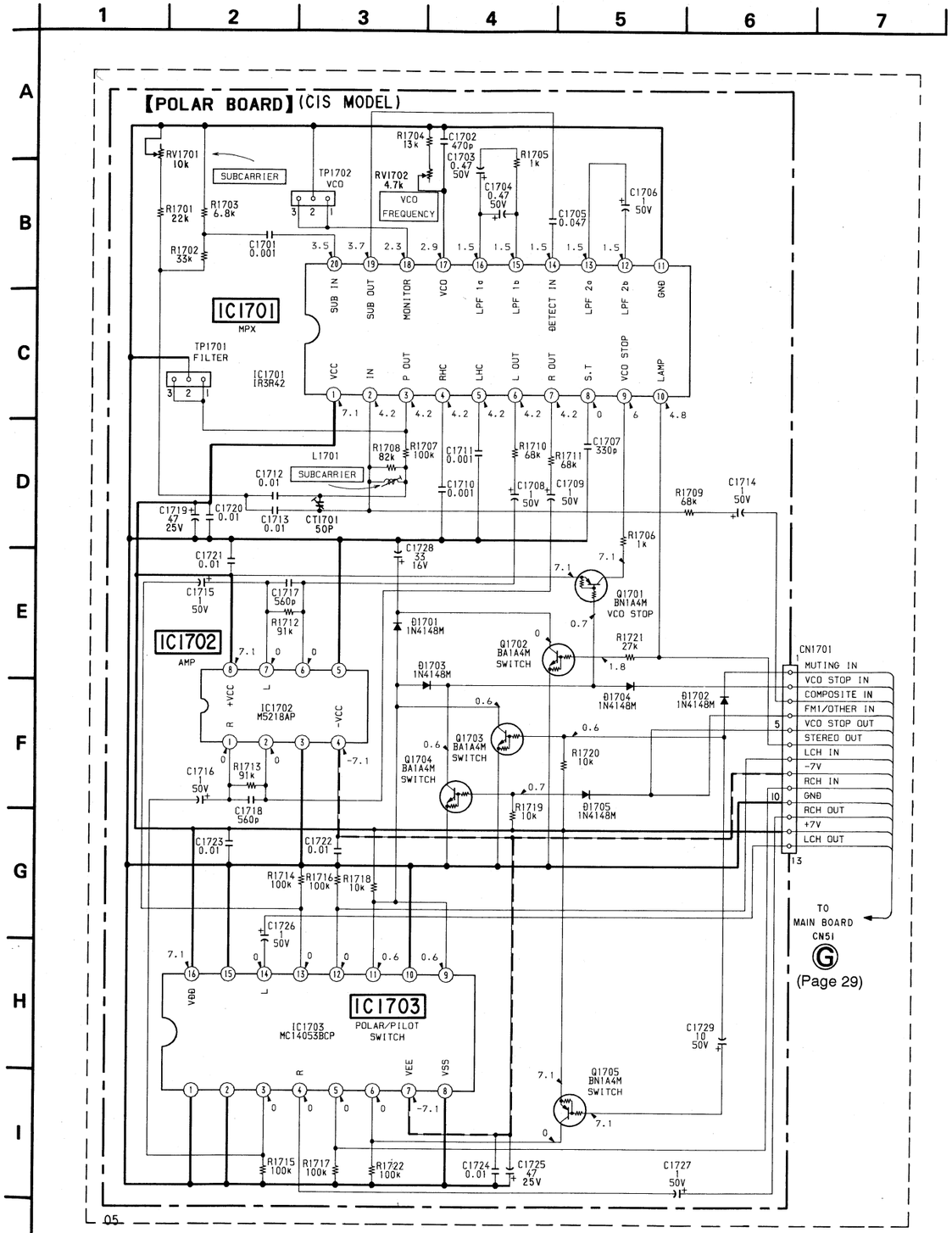


• **Semiconductor Location**

Ref. No.	Location
D1701	F-2
D1702	H-5
D1703	I-3
D1704	F-5
D1705	I-2
IC1701	D-4
IC1702	D-6
IC1703	G-3
Q1701	E-4
Q1702	F-2
Q1703	I-3
Q1704	I-3
Q1705	I-4

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▬▬ : B + Line.
- ▬ ▬ : B − Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.



5-7. CD SECTION PRINTED WIRING BOARDS

• See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.

• **Semiconductor Location**

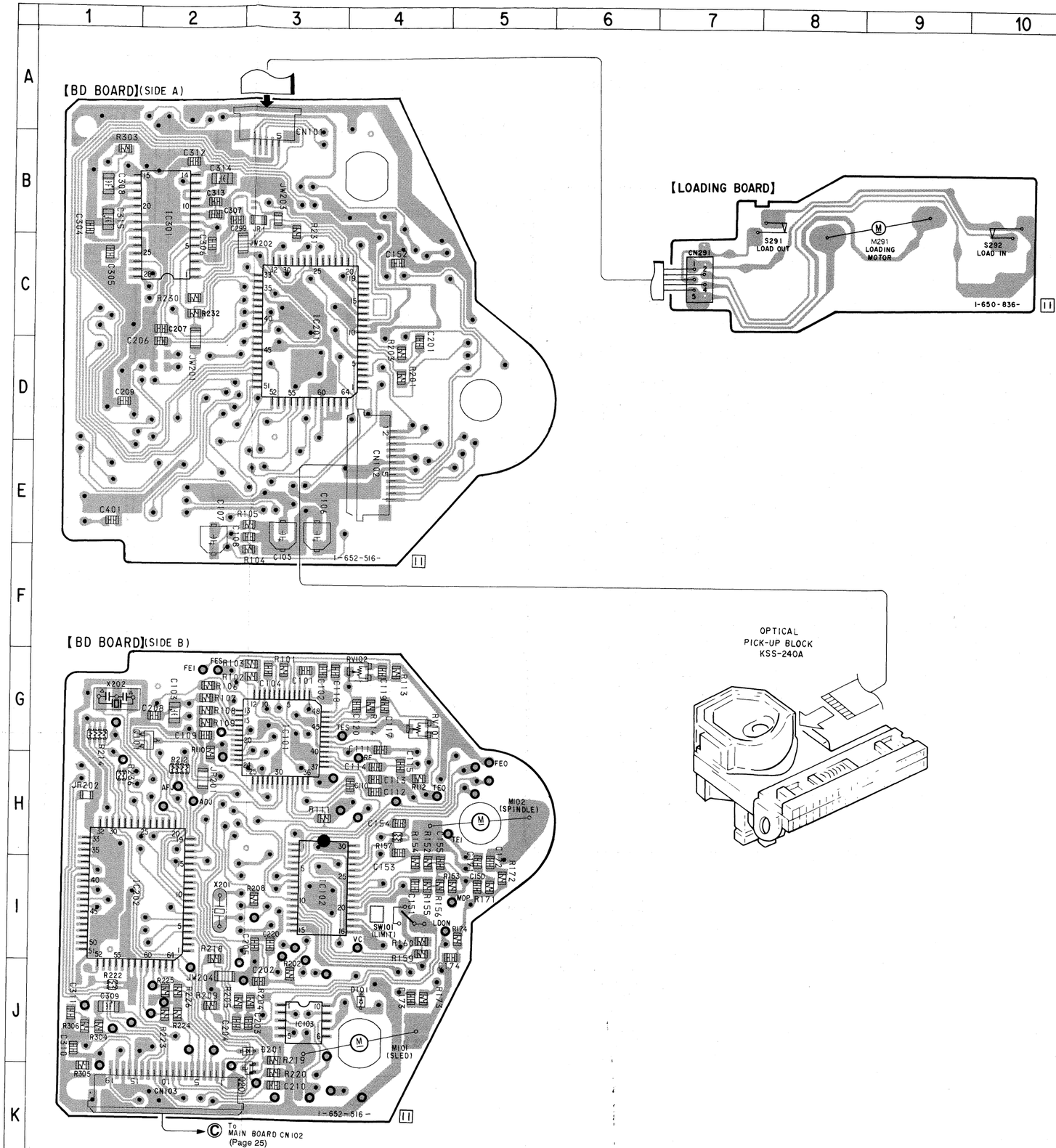
Ref. No.	Location
D101	J-4
D201	J-3
IC101	G-3
IC102	I-3
IC103	J-3
IC201	C-3
IC202	I-2
IC301	B-2
Q101	G-2
Q201	K-3

Note:

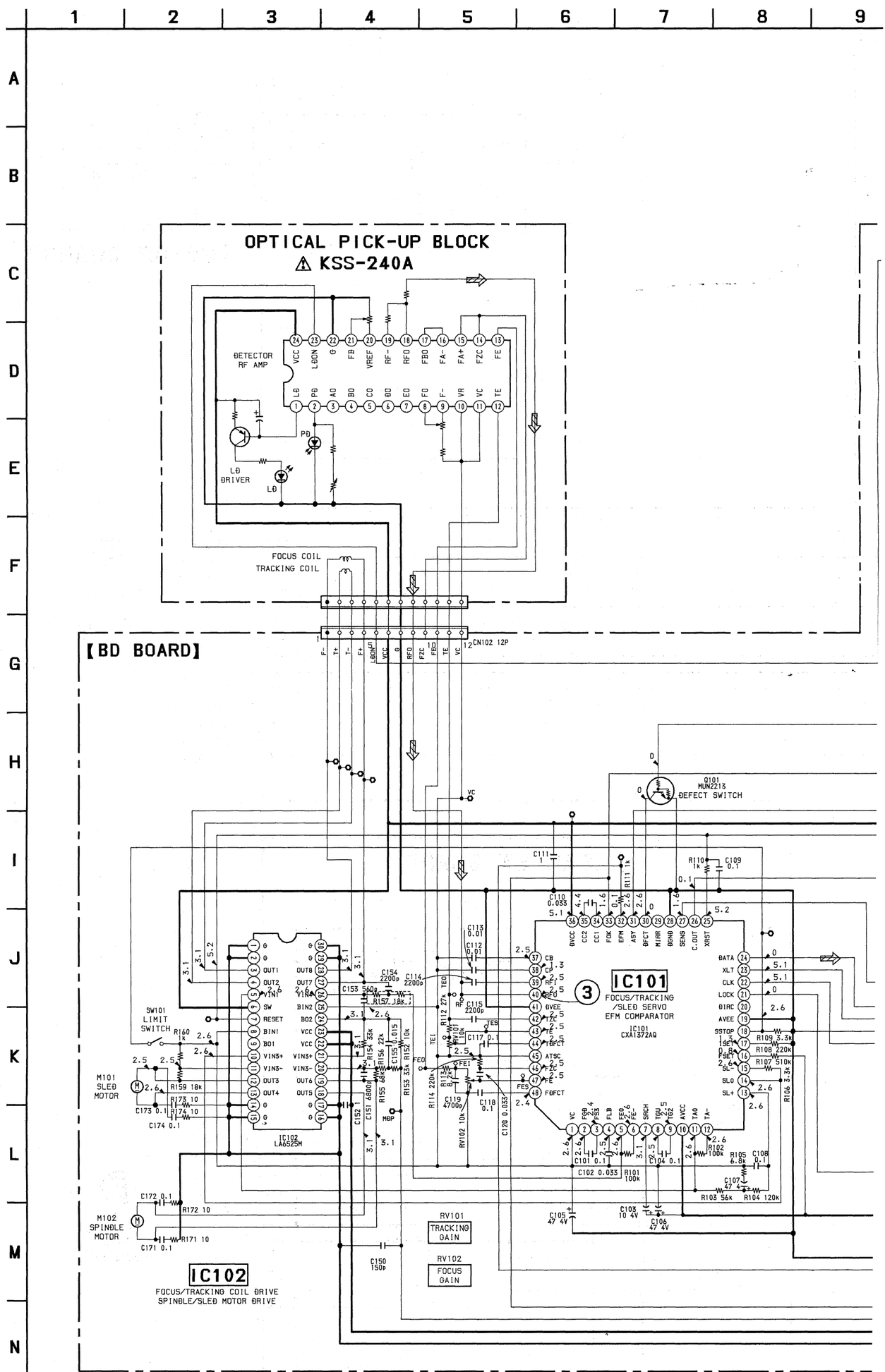
- ○——— : parts extracted from the component side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

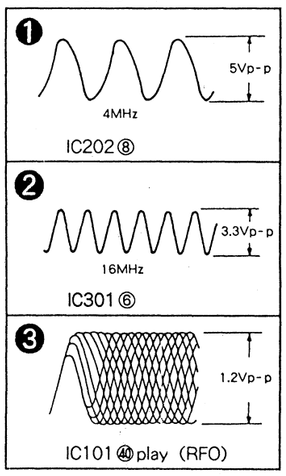
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



5-8. CD SECTION SCHEMATIC DIAGRAM • See page 49 for IC Block iagrams.



• **Wave forms**



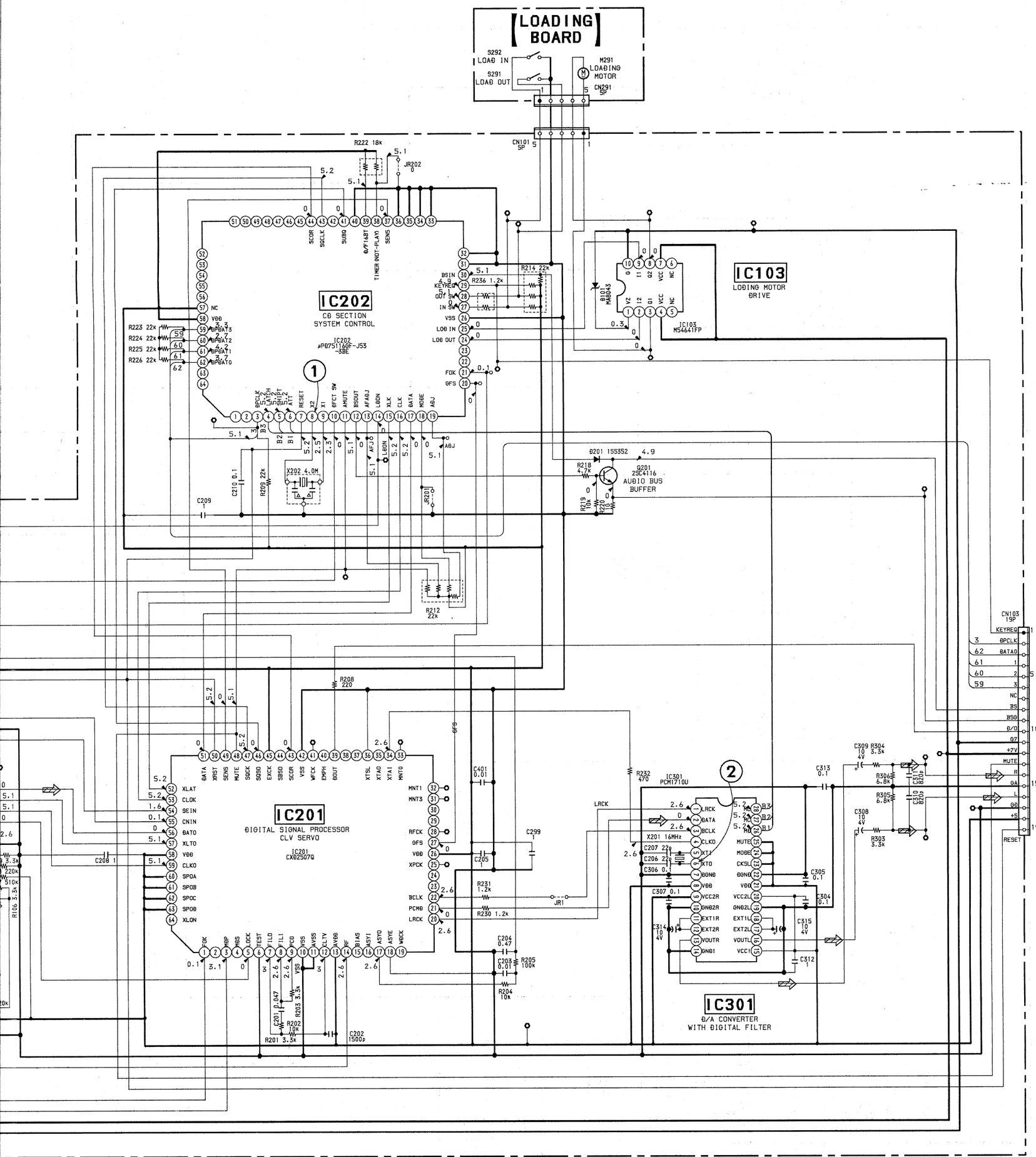
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.

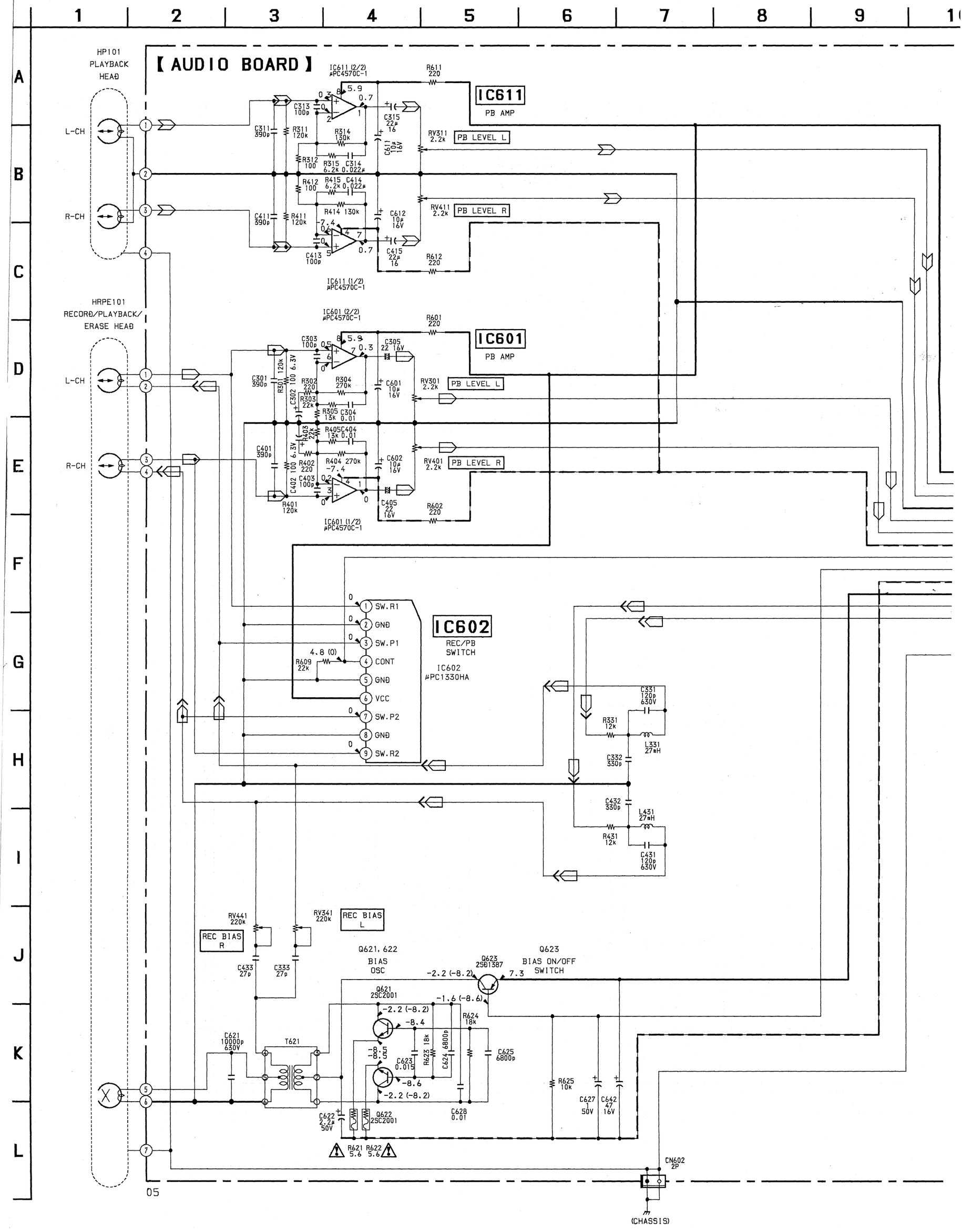
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

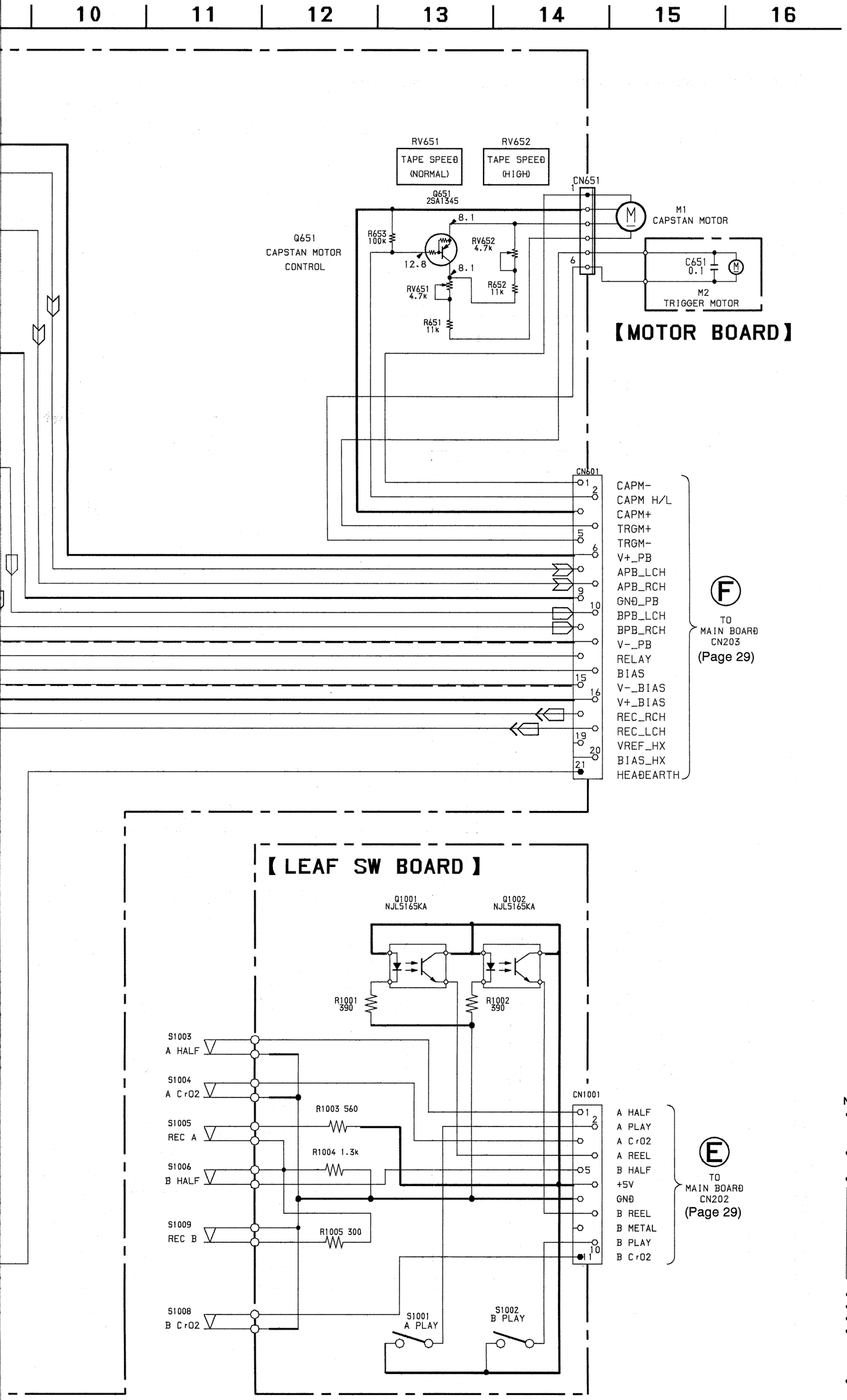
- ▬▬ : B + Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : CD
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21



5-9. TAPE SECTION SCHEMATIC DIAGRAM



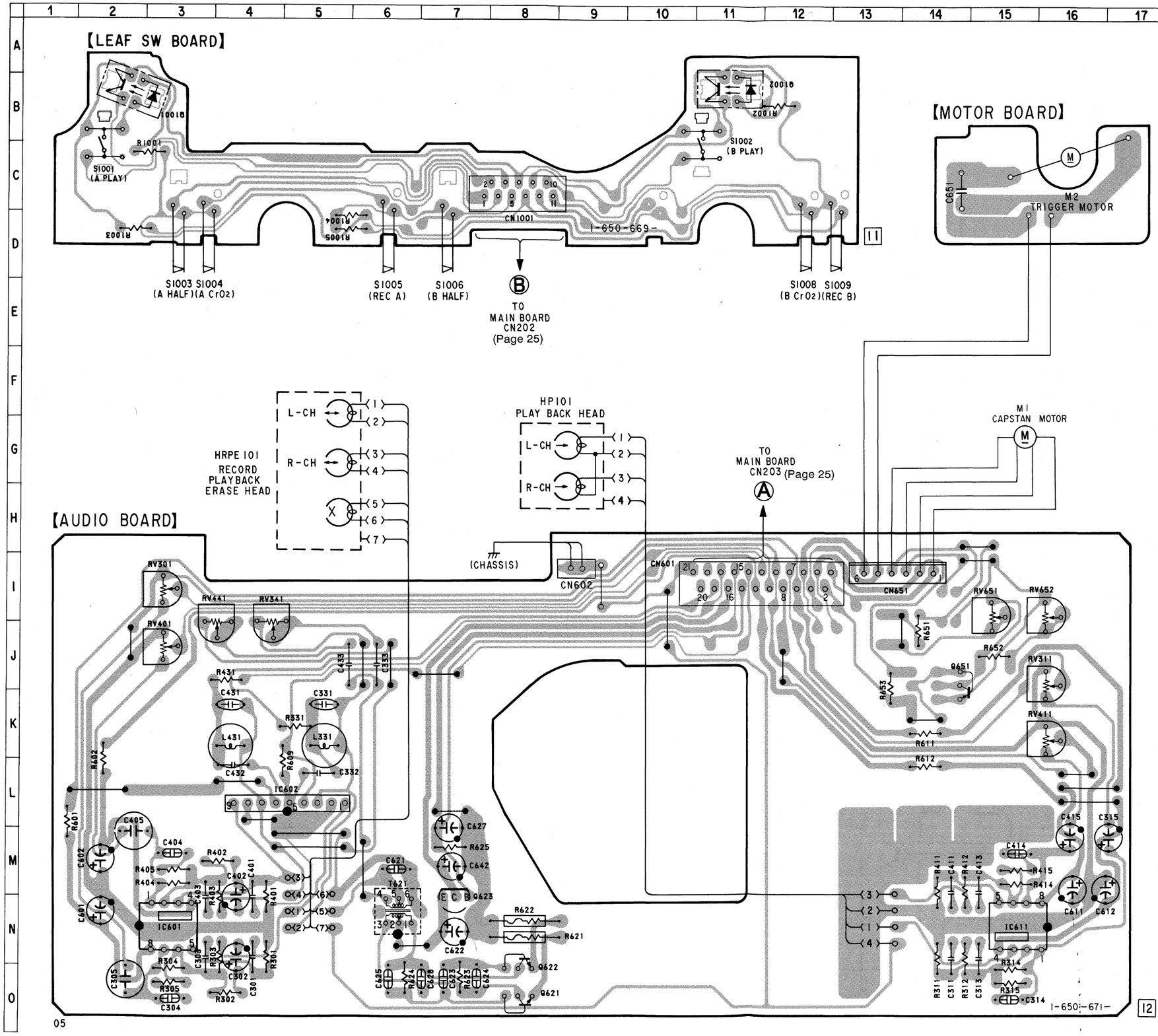


Note:

- All capacitors are in μF unless otherwise noted. pF: μ 50 WV or less are not indicated except for electrolyt and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwi specified.
- : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

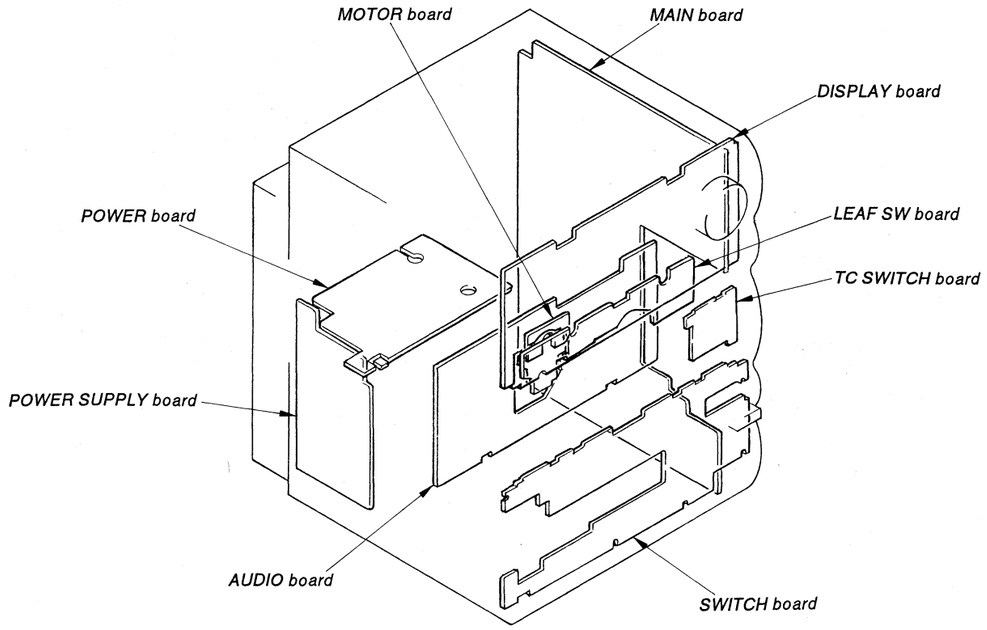
- : B + Line.
- : B − Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground unc no-signal (detuned) conditions.
  no mark : REC (Common)
  ( ) : PB
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal producti tolerances.
- Signal path.
  : PB (DECK B)
  : REC (DECK A)
  : REC (DECK B)



- **Semiconductor Location**

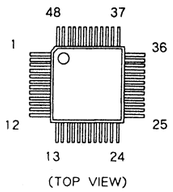
Ref. No.	Location
IC601	N-3
IC602	L-5
IC611	N-15
Q621	O-8
Q622	N-8
Q623	M-7
Q651	J-14
Q1001	B-2
Q1002	B-11

• Circuit Boards Location

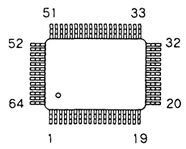


• Semiconductor Lead Layouts

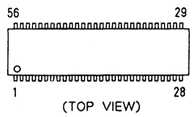
CXA1372AQ



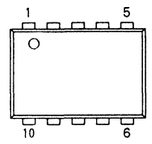
CXD2507Q
M38122M2-067FP
μPD75116GF-J53-3BE



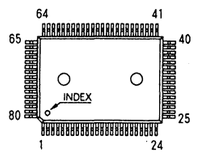
HA12172NT



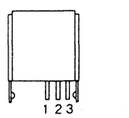
LA5601



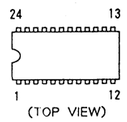
CXD2500BQ
μPD78042GF-062-3B9



GP1U90XB



LA1831
LC7218
M65831PK



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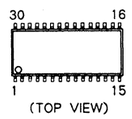

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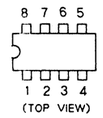

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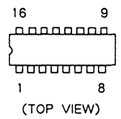

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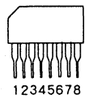

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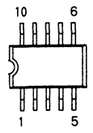

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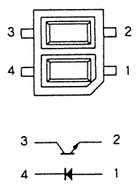

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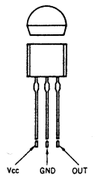

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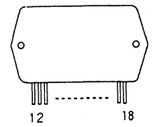

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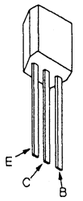

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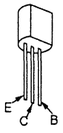

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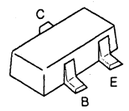

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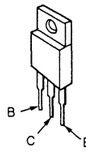

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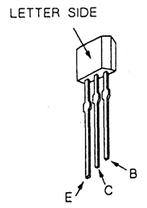

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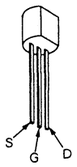

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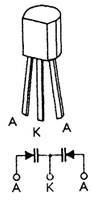

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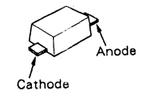

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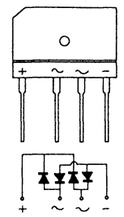

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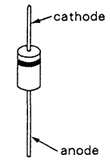
UZ-5.6BS
UZ6.3BSC
UZ8.2BSC
1N148M
11ES2



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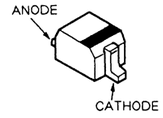

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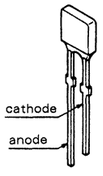
SEL5920A



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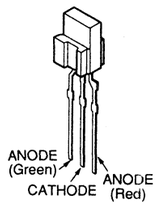
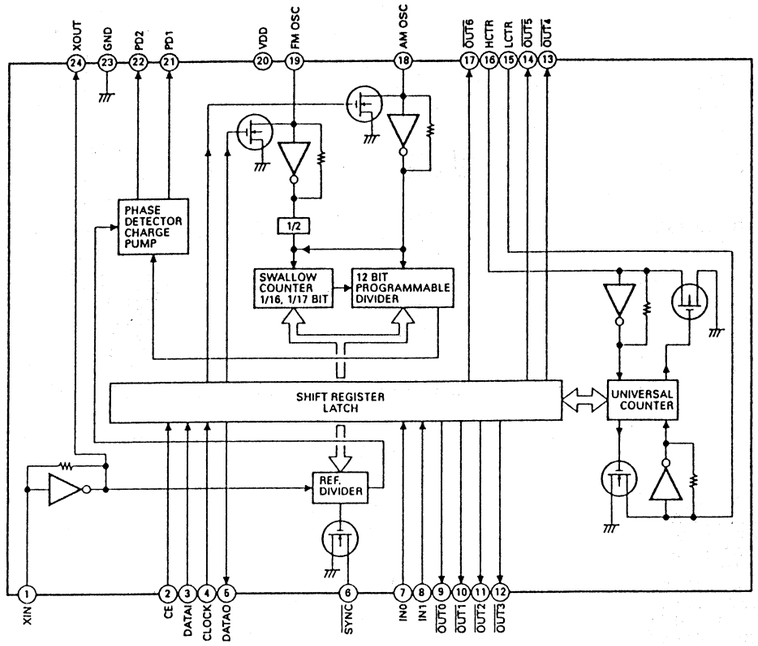


• IC Block Diagrams

IC21 LC7218



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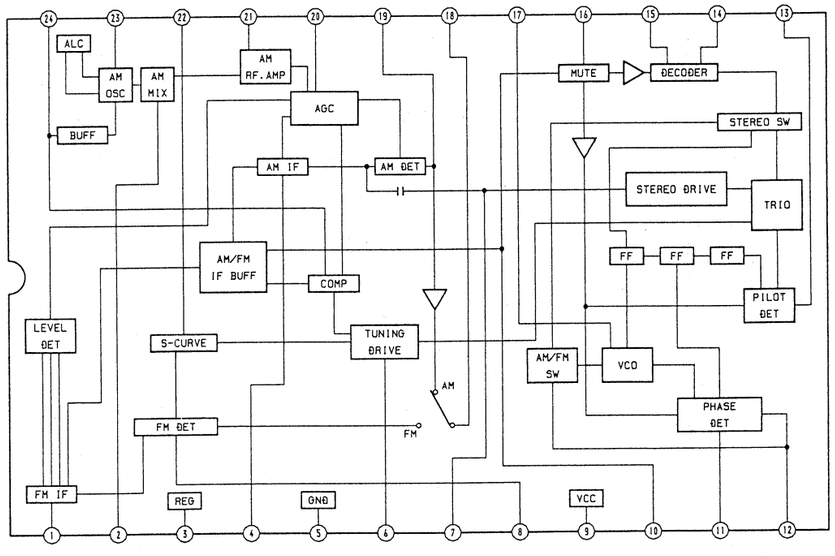

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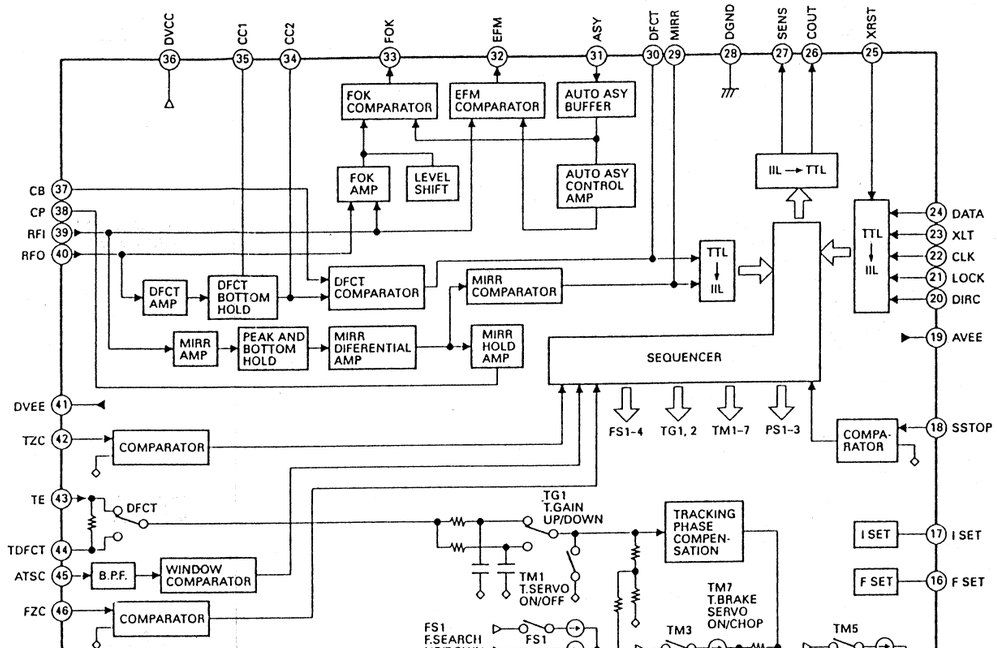

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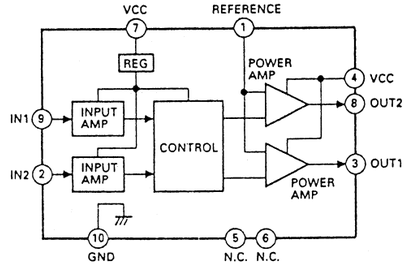

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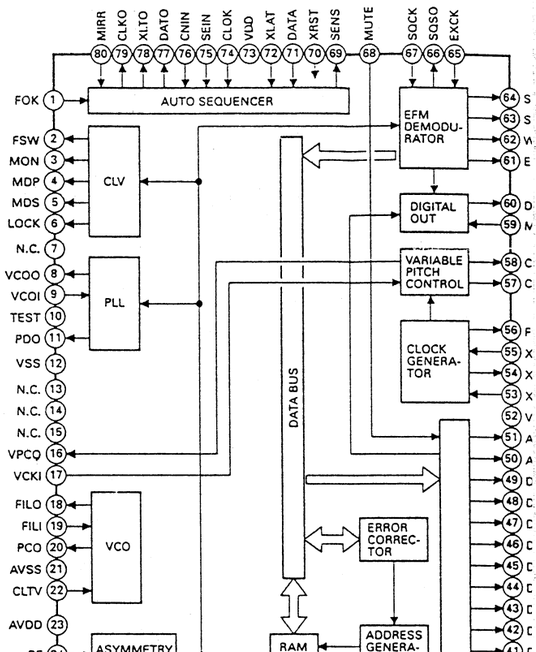

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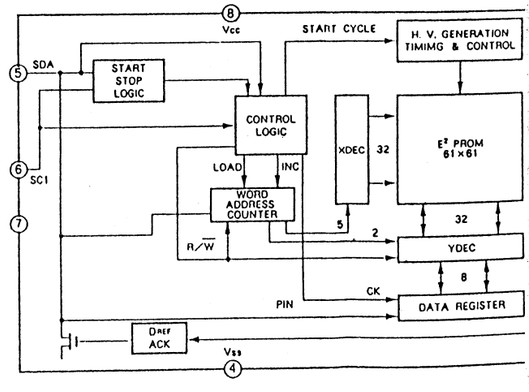

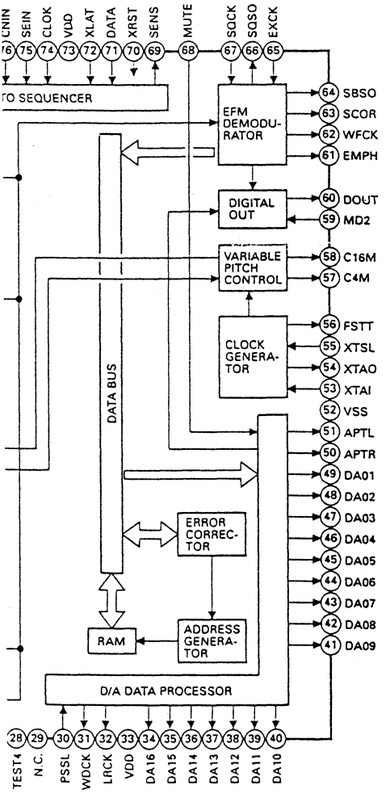

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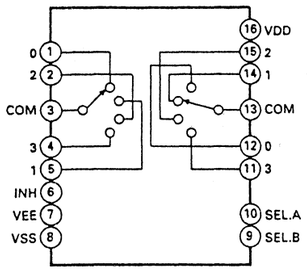

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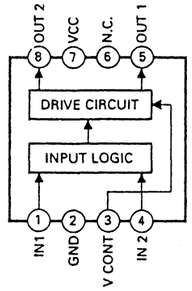

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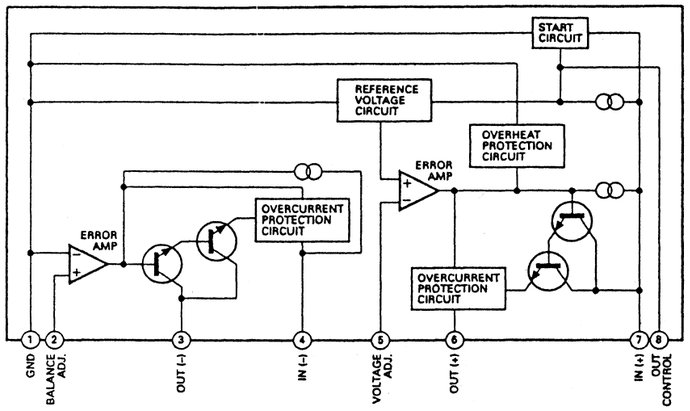

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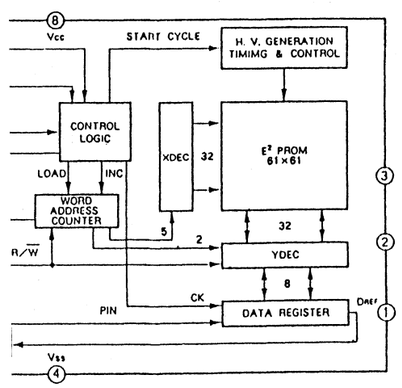
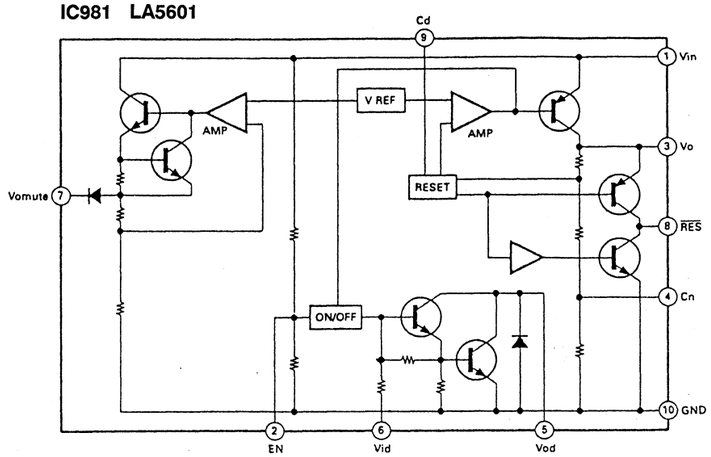




5-11. IC PIN FUNCTION

M38122M2-063FP (Main Board IC201)

Pin No.	Pin Name	I/O	Description
1	KEY4	I	Key input terminal.
2	METAL L	I	Meter L-CH input terminal.
3	METAL R	I	Meter R-CH input terminal.
4	AMS•IN	I	+5 V
5	A•HALF	I	Half pawl input for DECK-A. "L" : Available
6	A•SHUT	I	Take up side reel rocation detection at DECK-A.
7	A•SHUMIT	O	Take up side reel rocation detection at DECK-A.
8	B•SHUT	I	Take up side reel rocation detection at DECK-B.
9	B•SHUMIT	O	Take up side reel rocation detection at DECK-B.
10	PB A/B	O	Playback A/B selector. "L": DECK-A. "H": DECK-B.
11	EQ H/L	O	Equalizer selector. "L": Normal, "H": High
12	REC MUTE	O	Recording mute ON/OFF. "L": Mute ON. "H": Mute OFF
13	REC/PB	O	Recording/Playback selector. "L": REC, "H": PB
14	LINE MUTE	O	Line/Meter mute terminal. "L": Mute ON, "H": Mute OFF
15	B•BIAS	O	Bias ON/OFF at B-deck. "L": Bias ON, "H": Bias OFF
16	SIRCS	I	Circs signal in terminal.
17	PW IN (2)	I	Power ON/OFF (2). "L": Power OFF. "H": Power ON
18	PW IN (1)	I	Power ON/OFF (1). "L": Power OFF. "H": Power ON
19	RESET	I	Reset terminal.
20	POWER OUT	O	Power ON/OFF "L": Power hold
21	METAL	I	Metal tape selector terminal.
22	X IN	I	System clock input terminal (4 MHz).
23	X OUT	O	System clock output terminal (4 MHz).
24	GND	—	Power supply (GND)
25	B•RELAY	O	Recording/Playback selector at DECK-B. "L": REC
26	TEST	I	Test mode terminal. "L" : Test mode
27	B•STOP	I	Mechanism stop switch input for DECK'B. "H": ON
28	A•STOP	I	Mechanism stop switch input for DECK-A. "H": ON
29	− 22 V	O	VFD Power (− 22 V).
30	S15	O	VFD Segment.
31	S14	O	VFD Segment.
32	S13	O	VFD Segment.
33	S12	O	VFD Segment.
34	S11	O	VFD Segment.
35	S10	O	VFD Segment.
36	S9	O	VFD Segment.
37	S8	O	VFD Segment.
38	S7	O	VFD Segment.
39	S6	O	VFD Segment.
40	S5	O	VFD Segment.

Pin No.	Pin Name	I/O	Description
41	S4	O	VFD Segment.
42	S3	O	VFD Segment.
43	S2	O	VFD Segment.
44	S1	O	VFD Segment.
45	G1	O	VFD Grid.
46	G2	O	VFD Grid.
47	G4	O	VFD Grid.
48	G5	O	VFD Grid.
49	G3	O	VFD Grid.
50	G7	O	VFD Grid.
51	G6	O	VFD Grid.
52	CAP•H/L	O	Capstan motor speed selector. "L" : High, "H" : Normal
53	CAP•ON/OFF	O	Capstan motor ON/OFF. "H" :High, "L" ON
54	TRG•H/L	O	Trigger motor control.
55	A•TRG	O	Trigger motor contorl.
56	B•TRG	O	Trigger motor contorl.
57	Vcc	—	Power supply (+5 V)
58	VEE	—	Power supply (− 24 V)
59	A Vss (GND)	—	Power supply (GND)
60	VREF	—	A/D Referance voltage (+5V)
61	B•HALF	I	Half pawl input for deck-B. (REC pawl A/B side)
62	KEY1	I	Key input terminal.
63	KEY2	I	Key input terminal.
64	KEY3	I	Key input terminal.

SECTION 6
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

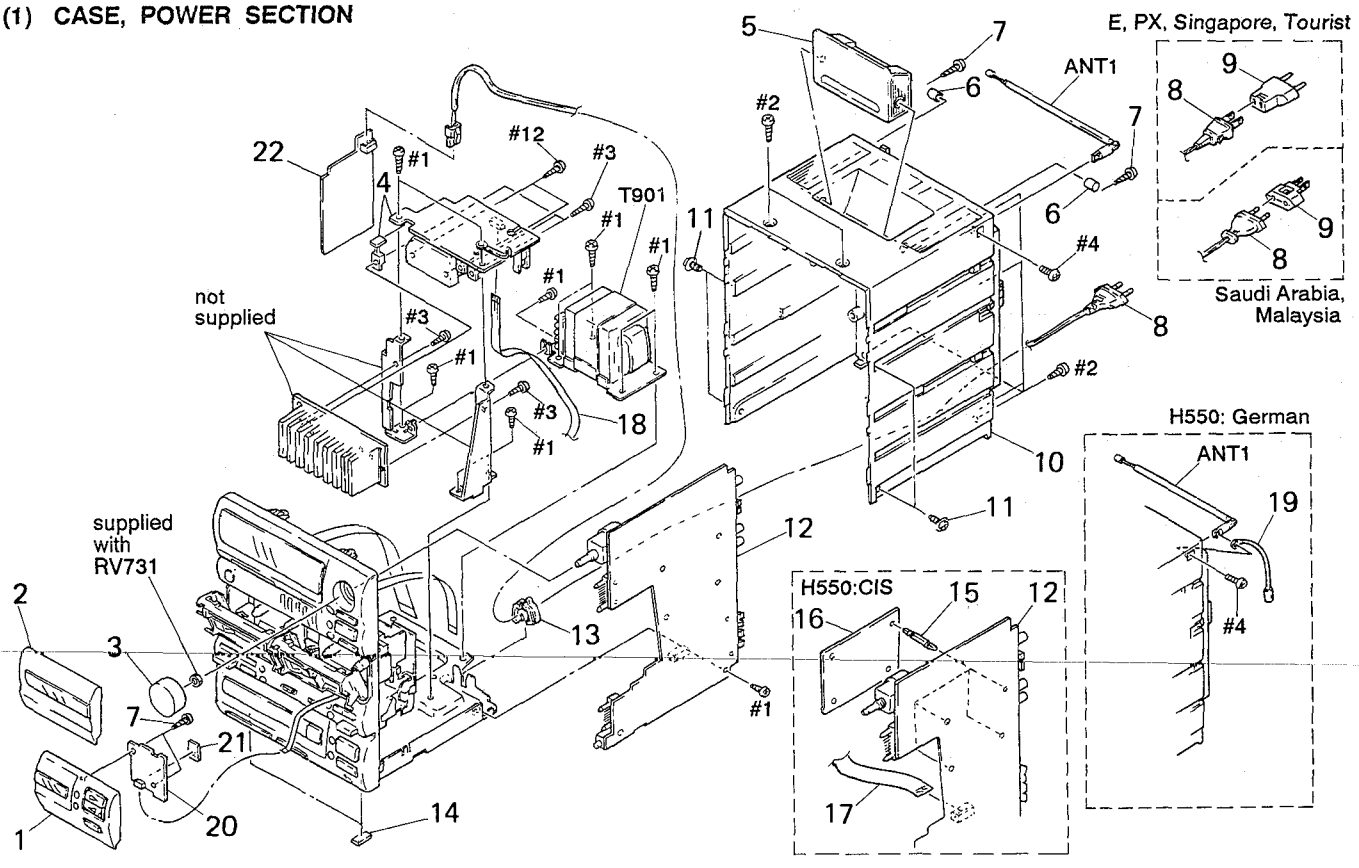
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

- Abbreviation

5: H550	AUS: Australian	G: German	MY: Malaysia	SP: Singapore	IT: Italian
M: H550M.	CND: Canadian	MX: Mexican	JE: Tourist	EE: East European	EA: Saudi Arabia

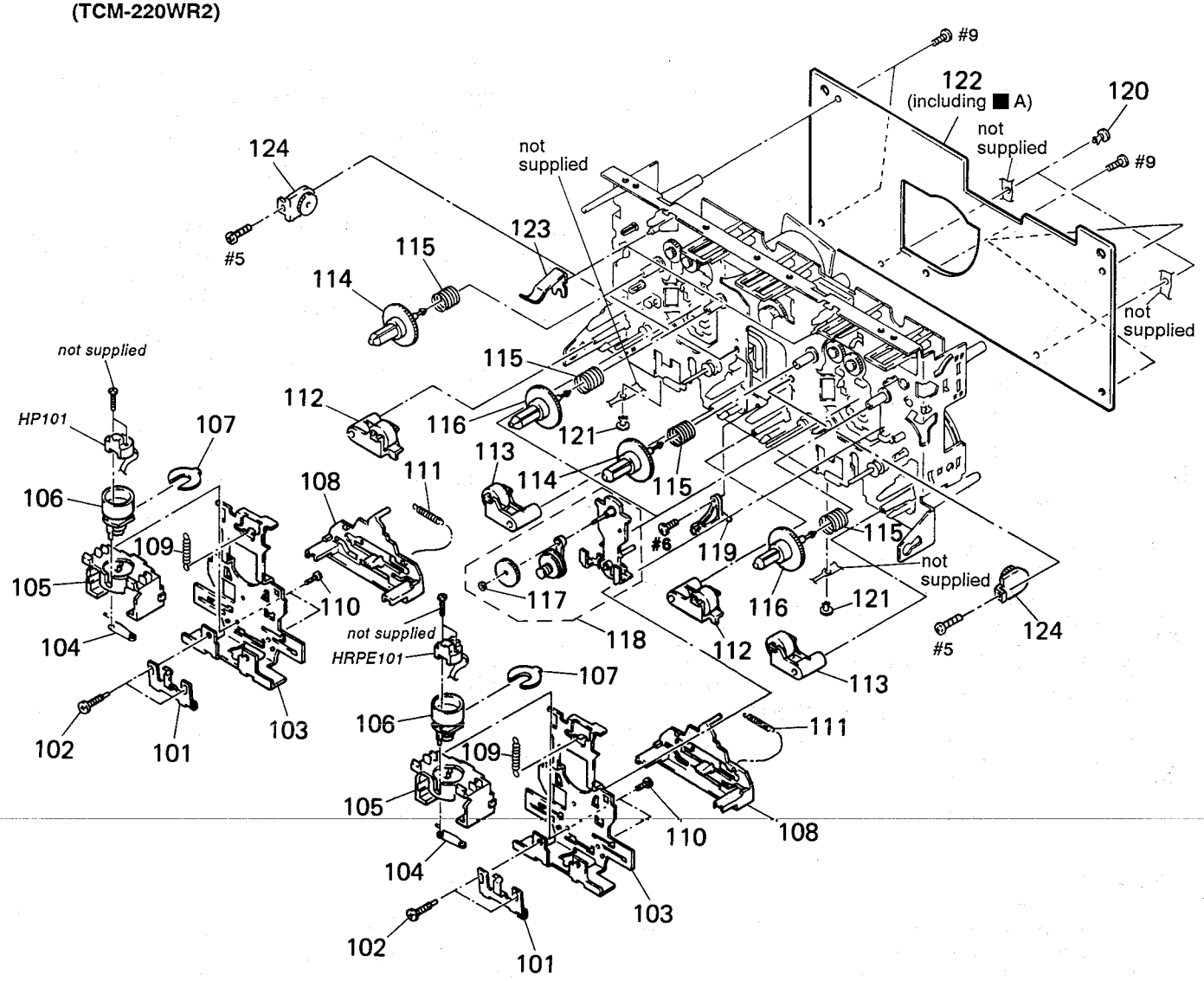
(1) CASE, POWER SECTION



Ref. No.	Part No.	Description	Remark
1	X-4945-164-1	LID (B) ASSY, CASSETTE	
2	X-4945-163-1	LID (A) ASSY, CASSETTE	
3	4-964-858-01	KNOB (V)	
* 4	A-4369-636-A	POWER BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE)	
* 4	A-4369-637-A	POWER BOARD, COMPLETE (5:E, EA, MX, MY, SP, AUS, PX, JE)	
* 4	A-4369-638-A	POWER BOARD, COMPLETE (5:G/M:IT)	
* 4	A-4369-649-A	POWER BOARD, COMPLETE (M:US)	
* 4	A-4369-650-A	POWER BOARD, COMPLETE (M:CND)	
* 4	A-4369-655-A	POWER BOARD, COMPLETE (M:UK)	
5	4-963-673-01	HANDLE (5)	
6	4-963-672-01	COLLAR (5)	
7	4-951-620-01	SCREW (2.6X8), +BVTP	
⚠8	1-558-943-41	CORD, POWER (5:E, MX, PX, JE)	
⚠8	1-575-042-21	CORD, POWER (M:US, CND)	
⚠8	1-575-651-21	CORD, POWER (5:AEP, CIS, EA, MY, SP/M:AEP, EE)	
⚠8	1-696-845-11	CORD, POWER (5:AU)	
⚠8	1-751-522-11	CORD, POWER (M:UK)	
⚠8	1-765-650-11	CORD, POWER (WITH CORE) (5:G/M:IT)	
⚠9	1-569-007-11	ADAPTER, CONVERSION 2P (5:E, SP, PX, JE)	
⚠9	1-569-008-11	ADAPTER, CONVERSION 2P (5:EA, MY)	
10	4-963-306-51	CASE (M)	
10	4-964-234-31	CASE (FH) (5:E, EA, MX, MY, SP, AUS, PX, JE)	
10	4-964-234-41	CASE (FH) (5:AEP, G, CIS)	
11	3-704-366-01	SCREW (CASE) (M3X8)	
* 12	A-4369-617-A	MAIN BOARD, COMPLETE (5:AEP)	
* 12	A-4369-618-A	MAIN BOARD, COMPLETE (5:E, EA, MX, MY, SP, AUS, PX, JE)	

Ref. No.	Part No.	Description	Remark
* 12	A-4369-619-A	MAIN BOARD, COMPLETE (M:EE)	
* 12	A-4369-620-A	MAIN BOARD, COMPLETE (5:G)	
* 12	A-4369-621-A	MAIN BOARD, COMPLETE (5:CIS)	
* 12	A-4369-639-A	MAIN BOARD, COMPLETE (M:AEP)	
* 12	A-4369-640-A	MAIN BOARD, COMPLETE (M:IT)	
* 12	A-4369-641-A	MAIN BOARD, COMPLETE (M:US)	
* 12	A-4369-642-A	MAIN BOARD, COMPLETE (M:CND)	
* 12	A-4369-651-A	MAIN BOARD, COMPLETE (M:UK)	
* 13	3-703-244-00	BUSHING (2104), CORD (5:AEP, G, CIS, EA, AUS, MY, SP/M)	
* 13	3-703-571-11	BUSHING (S) (4516), CORD (5:E, MX, PX, JE)	
14	4-930-336-81	FOOT (FELT)	
15	4-965-065-01	HOLDER, PCB (5:CIS)	
* 16	A-4365-958-A	POLAR BOARD, COMPLETE (5:CIS)	
17	1-590-036-31	WIRE, FLAT TYPE (13 CORE) (5:CIS)	
18	1-765-477-21	WIRE (FLAT TYPE) (9 CORE)	
19	1-501-594-21	ANTENNA (FM) (5:G)	
* 20	1-651-855-11	TC SWITCH BOARD	
21	4-964-315-11	SHEET, PROTECTION	
* 22	1-651-852-11	POWER SUPPLY BOARD	
ANT1	1-501-321-51	ANTENNA, TELESCOPIC	
⚠T901	1-426-700-11	TRANSFORMER, POWER (5:AEP, G, CIS/M:AEP, IT, EE)	
⚠T901	1-426-701-11	TRANSFORMER, POWER (M:UK)	
⚠T901	1-426-702-11	TRANSFORMER, POWER (5:E, EA, MX, MY, SP, AUS, PX, JE)	
⚠T901	1-426-703-11	TRANSFORMER, POWER (M:US, CND)	

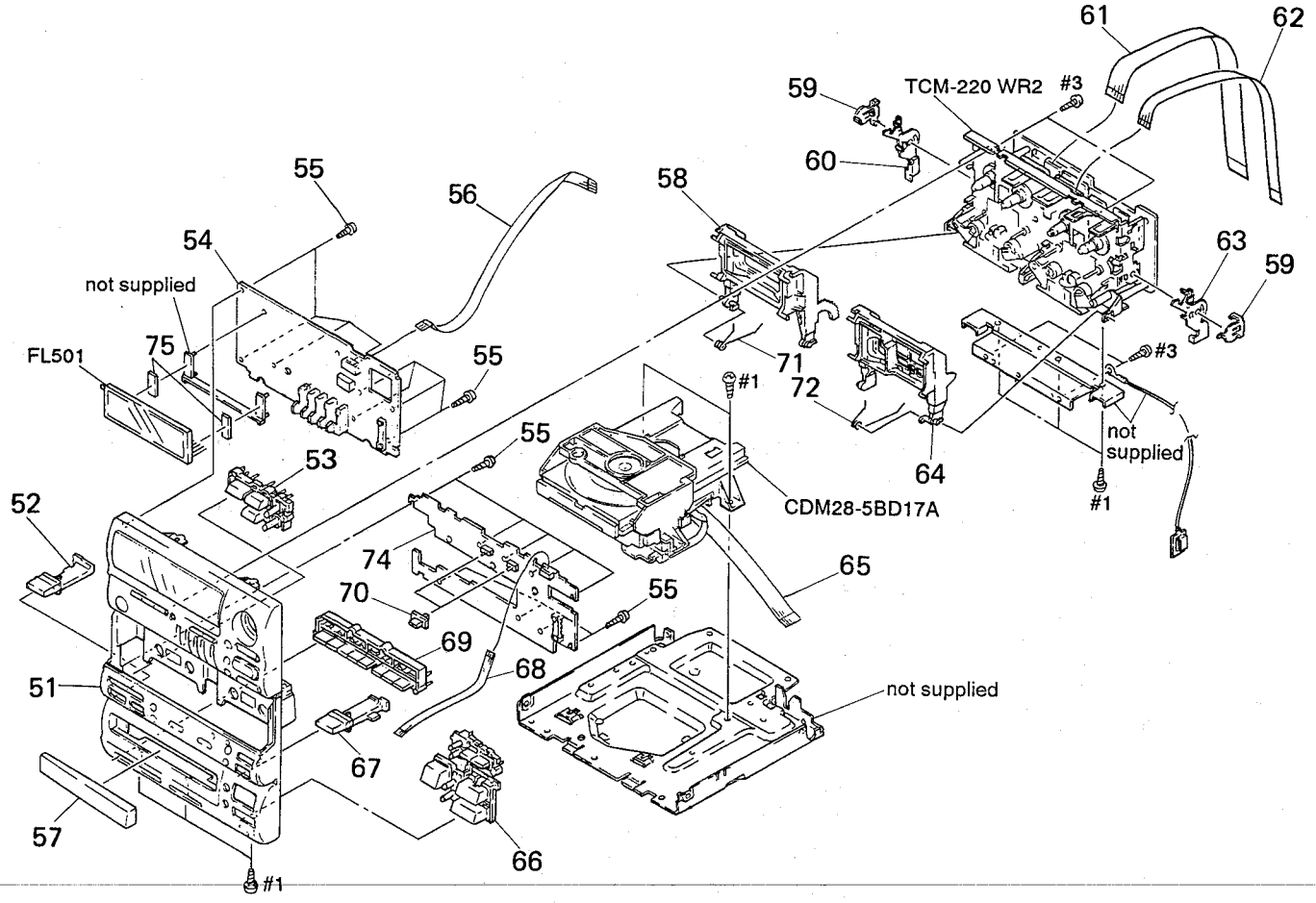
(3) MECHANISM SECTION 1 (TCM-220WR2)



Ref. No.	Part No.	Description	Remark
101	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
102	3-908-561-01	SCREW	
* 103	X-3367-584-2	SLIDER (HEAD) ASSY	
104	3-908-556-01	SPRING, HEAD TOGGLE	
105	3-908-558-02	FITTING BLOCK, HEAD	
106	3-908-557-02	ROTARY BLOCK, HEAD	
* 107	3-908-559-01	STOPPER, AZIMUTH	
108	3-908-555-01	SLIDER (REV SLIDER)	
109	3-908-602-01	SPRING (HEAD), TENSION	
110	3-388-848-01	SCREW (P2X6) (B TIGHT)	
111	3-911-113-01	SPRING, TENSION	
112	X-3367-589-1	PINCH LEVER (REV) ASSY	
113	X-3367-588-1	PINCH LEVER (FWD) ASSY	

Ref. No.	Part No.	Description	Remark
114	3-908-613-01	GEAR (S), REEL	
115	3-908-596-01	SPRING (REEL), COMPRESSION	
116	X-3367-594-1	REEL (T) ASSY	
117	3-669-465-00	WASHER (1.5), STOPPER	
118	X-3367-592-2	TU ASSY	
* 119	3-908-611-01	FULCRUM, HOLDER	
120	3-911-116-01	RIVET, PUSH	
121	3-911-116-11	RIVET, PUSH	
* 122	A-2007-131-A	AUDIO BOARD, COMPLETE	
123	3-915-490-01	DETENT, HALF	
124	3-354-963-01	DAMPER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	

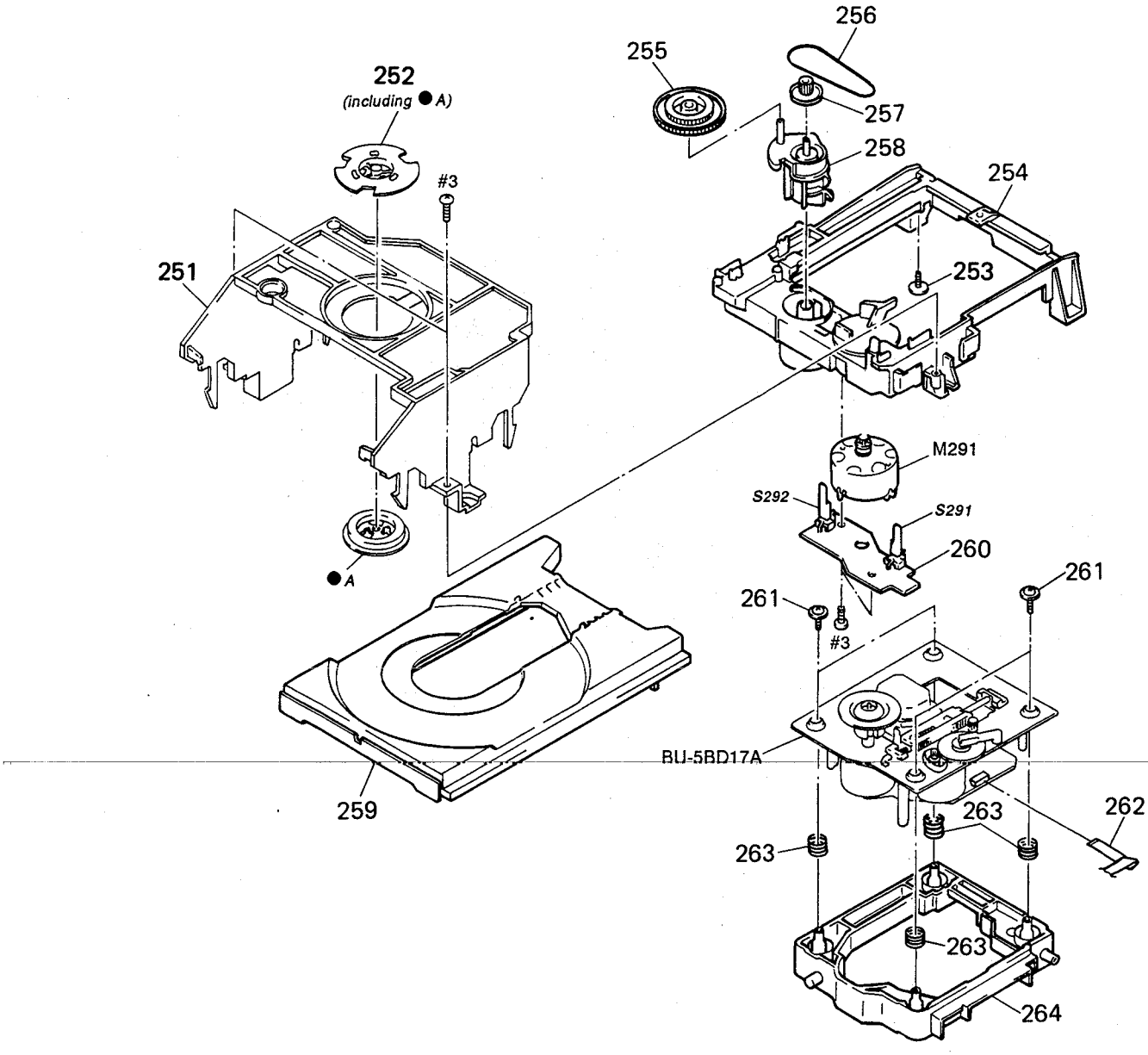
(2) FRONT PANEL, CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	X-4944-702-1	PANEL ASSY, FRONT (5:E, EA, MX, MY, SP, AUS, PX)	
* 51	X-4944-703-1	PANEL ASSY, FRONT (5:AEP, G, CIS)	
* 51	X-4944-817-1	PANEL ASSY, FRONT (M)	
52	4-965-452-01	BUTTON (E) (L)	
53	X-4944-434-1	BUTTON (M1) ASSY	
* 54	A-4369-629-A	DISPLAY BOARD, COMPLETE (5:E, EA, MX, MY, SP, AUS, PX, JE)	
* 54	A-4369-630-A	DISPLAY BOARD, COMPLETE (M:EE)	
* 54	A-4369-631-A	DISPLAY BOARD, COMPLETE (5:G)	
* 54	A-4369-632-A	DISPLAY BOARD, COMPLETE (5:CIS)	
* 54	A-4369-645-A	DISPLAY BOARD, COMPLETE (M:US)	
* 54	A-4369-646-A	DISPLAY BOARD, COMPLETE (M:CND)	
* 54	A-4369-653-A	DISPLAY BOARD, COMPLETE (M:UK)	
* 54	A-4371-142-A	DISPLAY BOARD, COMPLETE (M:IT)	
55	4-951-620-01	SCREW (2.6X8), +BVTP	
56	1-765-479-11	WIRE (FLAT TYPE) (13 CORE)	
57	4-963-286-11	PANEL, LOADING	
58	X-4944-415-1	HOLDER (L) ASSY, CASSETTE	
59	3-354-957-01	JOINT (LOCK LEVER)	
60	3-367-709-21	LEVER (LOCK LEVER L)	
61	1-765-481-21	WIRE (FLAT TYPE) (21 CORE)	

Ref. No.	Part No.	Description	Remark
62	1-765-478-21	WIRE (FLAT TYPE) (11 CORE)	
63	4-965-877-01	LEVER (LOCK LEVER R)	
64	X-4944-416-3	HOLDER (R) ASSY, CASSETTE	
65	1-765-480-21	WIRE (FLAT TYPE) (19 CORE)	
66	X-4944-701-1	BUTTON (M2) ASSY	
67	4-965-453-01	BUTTON (E) (R)	
68	1-765-476-11	WIRE (FLAT TYPE) (7 CORE)	
69	4-963-655-01	BUTTON (CDP)	
70	4-963-284-11	KNOB (S)	
71	4-959-231-11	SPRING (L), TORSION	
72	4-959-232-11	SPRING (R), TORSION	
* 74	A-4369-624-A	SWITCH BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE)	
* 74	A-4369-625-A	SWITCH BOARD, COMPLETE (5:E, EA, MX, MY, SP, AUS, PX, JE)	
* 74	A-4369-626-A	SWITCH BOARD, COMPLETE (5:G/M:IT)	
* 74	A-4369-643-A	SWITCH BOARD, COMPLETE (M:US)	
* 74	A-4369-644-A	SWITCH BOARD, COMPLETE (M:CND)	
* 74	A-4369-652-A	SWITCH BOARD, COMPLETE (M:UK)	
* 75	4-932-810-11	CUSHION (FL)	
FL501	1-517-294-11	INDICATOR TUBE, FLUORESCENT	

(5) CD MECHANISM SECTION-1
(CDM28-5BD17A)

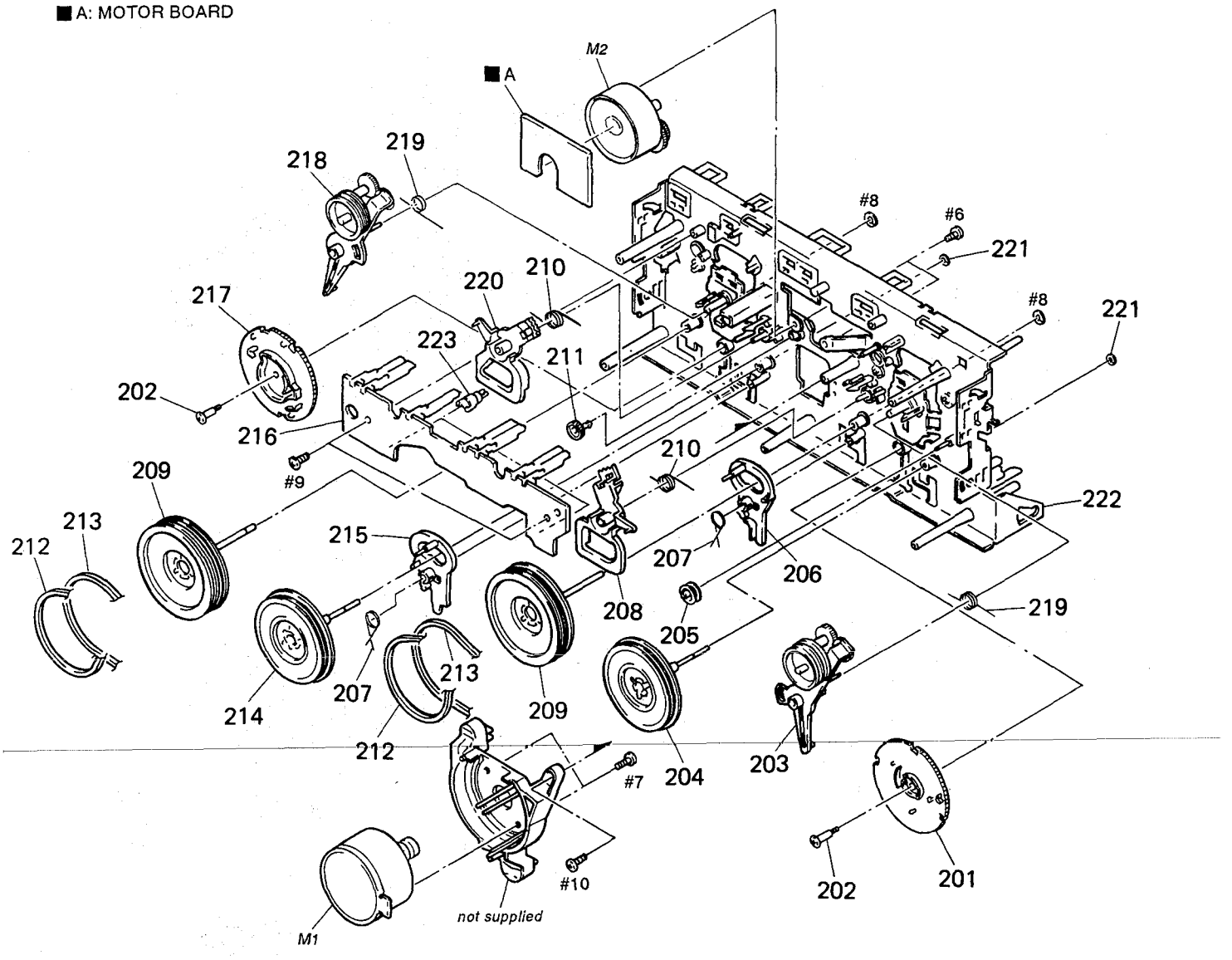


Ref. No.	Part No.	Description	Remark
251	4-960-835-01	HOLDER (M)	
252	1-452-719-11	MAGNET ASSY	
* 253	4-917-583-21	BRACKET, YOKE	
254	4-960-838-01	BASE (MD)	
255	4-960-842-01	GEAR (P)	
256	4-927-649-01	BELT	
257	4-960-841-01	PULLEY (S)	
* 258	4-960-839-01	CAM	
259	4-960-836-01	TABLE, DISC	

Ref. No.	Part No.	Description	Remark
* 260	1-650-836-11	LOADING BOARD	
261	4-933-134-01	SCREW (+PTPWH M2.6X6)	
262	1-751-806-11	WIRE (FLAT TYPE) (5 CORE)	
263	4-959-996-01	SPRING (932), COMPRESSION	
264	4-960-834-01	HOLDER (BU)	
M291	A-4604-363-A	MOTOR (L) ASSY	
S291	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S292	1-572-086-11	SWITCH, LEAF (LOAD IN)	

(4) MECHANISM SECTION 2 (TCM-220WR2)

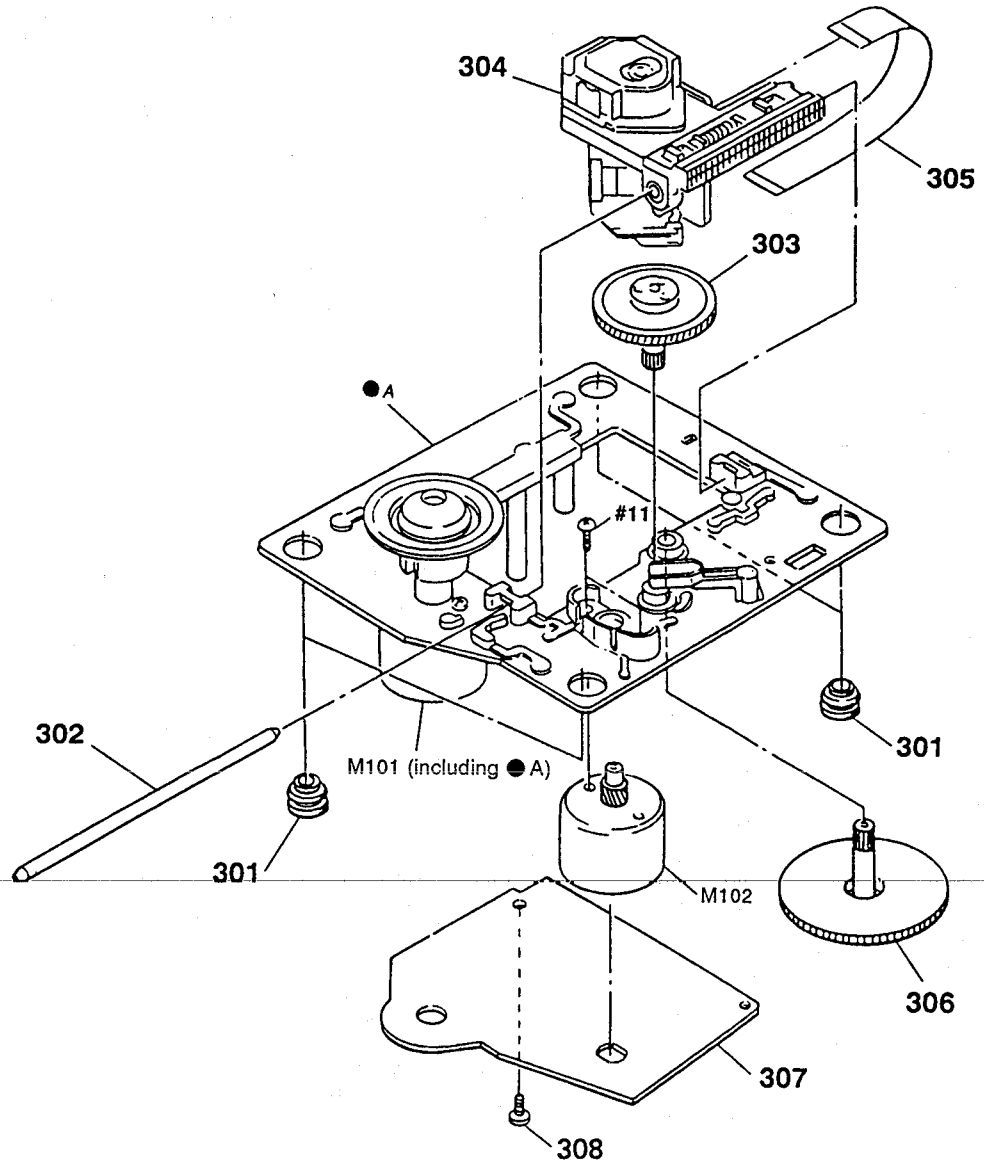
■A: MOTOR BOARD



Ref. No.	Part No.	Description	Remark
201	3-908-597-01	CAM (A)	
202	3-908-608-01	SCREW, STEP	
203	X-3367-590-2	ARM (A) ASSY, FR	
204	X-3367-586-1	FLYWHEEL (AR) ASSY	
205	3-908-610-01	PULLEY, TENSION	
206	3-908-599-01	LEVER (REV-A)	
207	3-908-601-01	SPRING (REV LEVER), TORSION	
208	3-908-603-01	LEVER (TRIGGER A)	
209	X-3367-593-1	FLYWHEEL (BF) ASSY	
210	3-908-605-01	SPRING (TRIGGER), TORSION	
211	3-908-609-01	GEAR, TRIGGER	
212	3-913-845-01	BELT (A)	
213	3-913-846-01	BELT (FR)	

Ref. No.	Part No.	Description	Remark
214	X-3367-595-1	FLYWHEEL (BR) ASSY	
215	3-908-600-01	LEVER (REV-B)	
216	1-650-669-11	LEAF SW BOARD	
217	3-908-598-01	CAM (B)	
218	X-3367-591-2	ARM (B) ASSY, FR	
219	3-911-114-01	SPRING (FR), TORSION	
220	3-908-604-01	LEVER (TRIGGER B)	
221	3-911-115-01	WASHER, STOPPER	
222	X-3367-587-1	CHASSIS ASSY, MECHANICAL	
* 223	3-381-776-01	HOLDER (LED)	
M1	X-3369-110-1	MOTOR ASSY (CAPSTAN)	
M2	X-3369-111-1	MOTOR ASSY (TRIGGER)	

(6) CD MECHANISM SECTION-2 (BU-5BD17A)



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
301	4-951-940-01	INSULATOR (BU)	
302	4-917-565-01	SHAFT, SLED	
303	4-917-567-01	GEAR (M)	
⚠304	8-848-144-11	DEVICE, OPTICAL KSS-240A	
305	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4673-125-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-1	MOTOR ASSY (SPINDLE)	

AUDIO

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  5: H550 AUS: Australian G: German MY: Malaysia SP: Singapore IT: Italian
  M: H550M CND: Canadian MX: Mexican JE: Tourist EE: East European EA: Saudi Arabia
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			Remark
*	A-2007-131-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-124-443-00	ELECT	100uF	20%	10V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-124-282-00	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-124-234-00	ELECT	22uF	20%	16V
C331	1-136-434-11	FILM	120PF	5%	630V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-124-443-00	ELECT	100uF	20%	10V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-124-282-00	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-124-234-00	ELECT	22uF	20%	16V
C431	1-136-434-11	FILM	120PF	5%	630V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-126-157-11	ELECT	10uF	20%	16V
C611	1-126-157-11	ELECT	10uF	20%	16V
C612	1-126-157-11	ELECT	10uF	20%	16V
C621	1-136-601-11	FILM	0.01uF	5%	630V
C622	1-124-925-11	ELECT	2.2uF	20%	100V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-124-477-11	ELECT	47uF	20%	25V
C651	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN601	1-568-864-11	SOCKET, CONNECTOR 21P			
* CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387		
Q651	8-729-900-65	TRANSISTOR	DTA144ES		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W F
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W F
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W

Ref. No.	Part No.	Description	Remark
*	A-4369-629-A	DISPLAY BOARD, COMPLETE ********** (5:E, EA, MX, MY, SP, AUS, PX, JE)	
*	A-4369-630-A	DISPLAY BOARD, COMPLETE (M:EE) **********	
*	A-4369-631-A	DISPLAY BOARD, COMPLETE (5:G) **********	
*	A-4369-632-A	DISPLAY BOARD, COMPLETE (5:CIS) **********	
*	A-4369-645-A	DISPLAY BOARD, COMPLETE (M:US) **********	
*	A-4369-646-A	DISPLAY BOARD, COMPLETE (M:CND) **********	
*	A-4369-653-A	DISPLAY BOARD, COMPLETE (M:UK) **********	
*	A-4371-142-A	DISPLAY BOARD, COMPLETE (M:IT) **********	
*	4-932-810-01	CUSHION (FL)	
		< CAPACITOR >	
C501	1-126-157-11	ELECT 10uF 20%	16V
C502	1-164-159-11	CERAMIC 0.1uF	50V
C503	1-161-379-00	CERAMIC 0.01uF 20%	25V
C504	1-124-584-00	ELECT 100uF 20%	10V
C505	1-161-379-00	CERAMIC 0.01uF 20%	25V
C506	1-126-157-11	ELECT 10uF 20%	16V
C507	1-164-159-11	CERAMIC 0.1uF	50V
C508	1-161-379-00	CERAMIC 0.01uF 20%	25V
C509	1-126-157-11	ELECT 10uF 20%	16V
C510	1-162-282-31	CERAMIC 100PF 10%	50V
C511	1-164-027-11	CERAMIC 22PF 5%	50V
C512	1-162-205-31	CERAMIC 18PF 5%	50V
C513	1-161-379-00	CERAMIC 0.01uF 20%	25V
C514	1-124-584-00	ELECT 100uF 20%	10V
C515	1-136-161-00	FILM 0.047uF 5%	50V
C516	1-136-161-00	FILM 0.047uF 5%	50V
C517	1-124-248-00	ELECT 22uF 20%	35V
C518	1-162-282-31	CERAMIC 100PF 10%	50V
C519	1-162-294-31	CERAMIC 0.001uF 10%	50V
C601	1-161-379-00	CERAMIC 0.01uF 20%	25V
C602	1-162-294-31	CERAMIC 0.001uF 10%	50V
C603	1-161-494-00	CERAMIC 0.022uF	25V
C604	1-161-327-00	CERAMIC 0.0033uF 30%	16V
C605	1-164-159-11	CERAMIC 0.1uF	50V
C606	1-161-379-00	CERAMIC 0.01uF 20%	25V

Ref. No.	Part No.	Description	Remark
C607	1-124-464-11	ELECT 0.22uF 20%	50V
C608	1-164-159-11	CERAMIC 0.1uF	50V
C609	1-124-252-00	ELECT 0.33uF 20%	50V
C610	1-124-254-00	ELECT 0.68uF 20%	50V
C611	1-164-159-11	CERAMIC 0.1uF	50V
C612	1-162-282-31	CERAMIC 100PF 10%	50V
C613	1-162-294-31	CERAMIC 0.001uF 10%	50V
C616	1-162-282-31	CERAMIC 100PF 10%	50V
C617	1-126-157-11	ELECT 10uF 20%	16V
C618	1-126-160-11	ELECT 1uF 20%	50V
C619	1-124-465-00	ELECT 0.47uF 20%	50V
C620	1-126-157-11	ELECT 10uF 20%	16V
C621	1-162-282-31	CERAMIC 100PF 10%	50V
C622	1-162-282-31	CERAMIC 100PF 10%	50V
C623	1-136-157-00	FILM 0.022uF 5%	50V (EXCEPT 5:AEP, G, CIS/M)
C624	1-162-294-31	CERAMIC 0.001uF 10%	50V (EXCEPT 5:AEP, G, CIS/M)
C625	1-126-163-11	ELECT 4.7uF 20%	50V
C626	1-161-379-00	CERAMIC 0.01uF 20%	25V
C651	1-161-379-00	CERAMIC 0.01uF 20%	25V
C652	1-162-294-31	CERAMIC 0.001uF 10%	50V
C653	1-161-494-00	CERAMIC 0.022uF	25V
C654	1-161-327-00	CERAMIC 0.0033uF 30%	16V
C655	1-164-159-11	CERAMIC 0.1uF	50V
C656	1-161-379-00	CERAMIC 0.01uF 20%	25V
C657	1-124-464-11	ELECT 0.22uF 20%	50V
C658	1-164-159-11	CERAMIC 0.1uF	50V
C659	1-124-252-00	ELECT 0.33uF 20%	50V
C660	1-124-254-00	ELECT 0.68uF 20%	50V
C661	1-164-159-11	CERAMIC 0.1uF	50V
C662	1-162-282-31	CERAMIC 100PF 10%	50V
C663	1-162-294-31	CERAMIC 0.001uF 10%	50V
C666	1-162-282-31	CERAMIC 100PF 10%	50V
C667	1-126-157-11	ELECT 10uF 20%	16V
C668	1-124-463-00	ELECT 0.1uF 20%	50V
C669	1-124-465-00	ELECT 0.47uF 20%	50V
C671	1-162-282-31	CERAMIC 100PF 10%	50V
C672	1-162-282-31	CERAMIC 100PF 10%	50V
C673	1-136-157-00	FILM 0.022uF 5%	50V (EXCEPT 5:AEP, G, CIS/M)
C674	1-162-294-31	CERAMIC 0.001uF 10%	50V (EXCEPT 5:AEP, G, CIS/M)
C675	1-126-163-11	ELECT 4.7uF 20%	50V
C676	1-161-379-00	CERAMIC 0.01uF 20%	25V

DISPLAY

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN501	1-764-300-11	HOUSING, CONNECTOR (PC BOARD) 20P	
CN503	1-691-647-11	SOCKET, CONNECTOR 13P	
CNJ2	1-691-645-11	SOCKET, CONNECTOR 9P	
		< DIODE >	
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D503	8-719-987-63	DIODE 1N4148M	
D504	8-719-987-63	DIODE 1N4148M	
D505	8-719-987-63	DIODE 1N4148M	
D506	8-719-026-64	DIODE SML1260S (D BFB)	
D507	8-719-026-64	DIODE SML1260S (S-SUR)	
D508	8-719-026-64	DIODE SML1260S (P RESET)	
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D611	8-719-987-63	DIODE 1N4148M	(EXCEPT 5:AEP, G, CIS/M)
D612	8-719-987-63	DIODE 1N4148M	(EXCEPT 5:AEP, G, CIS/M)
D613	8-719-987-63	DIODE 1N4148M	(EXCEPT 5:AEP, G, CIS/M)
D621	8-719-026-64	DIODE SML1260S (KARAOKE PON)	(EXCEPT 5:AEP, G, CIS/M)
D651	8-719-987-63	DIODE 1N4148M	
D652	8-719-987-63	DIODE 1N4148M	
		< FILTER >	
FL501	1-517-294-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC501	8-759-259-65	IC uPD78042GF-062-3B9	
IC502	8-759-188-67	IC X24C01P-S	
IC503	8-759-165-88	IC PST600K	
IC504	8-759-165-81	IC PST600D	
IC505	8-749-923-80	IC GP1U90XB	
IC601	8-759-630-99	IC M5226FP	
IC621	8-759-634-50	IC M5218AL	
IC651	8-759-630-99	IC M5226FP	
		< TRANSISTOR >	
Q501	8-729-900-61	TRANSISTOR DTA114ES	
Q502	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q503	8-729-900-80	TRANSISTOR DTC114ES	
Q601	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q602	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q603	8-729-900-61	TRANSISTOR DTA114ES	
Q604	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q621	8-729-900-80	TRANSISTOR DTC114ES	(EXCEPT 5:AEP, G, CIS/M)
Q651	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q652	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q671	8-729-900-80	TRANSISTOR DTC114ES	(EXCEPT 5:AEP, G, CIS/M)
		< RESISTOR >	
R500	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R501	1-247-807-31	CARBON 100 5% 1/4W	
R502	1-247-807-31	CARBON 100 5% 1/4W	
R503	1-247-807-31	CARBON 100 5% 1/4W	
R504	1-247-807-31	CARBON 100 5% 1/4W	
R505	1-247-807-31	CARBON 100 5% 1/4W	
R506	1-247-807-31	CARBON 100 5% 1/4W	
R507	1-247-807-31	CARBON 100 5% 1/4W	
R508	1-247-807-31	CARBON 100 5% 1/4W	
R509	1-247-807-31	CARBON 100 5% 1/4W	
R510	1-247-807-31	CARBON 100 5% 1/4W	
R511	1-247-807-31	CARBON 100 5% 1/4W	
R512	1-247-807-31	CARBON 100 5% 1/4W	
R513	1-247-807-31	CARBON 100 5% 1/4W	
R514	1-247-807-31	CARBON 100 5% 1/4W	
R515	1-247-807-31	CARBON 100 5% 1/4W	
R516	1-247-807-31	CARBON 100 5% 1/4W	
R517	1-247-807-31	CARBON 100 5% 1/4W	
R518	1-247-807-31	CARBON 100 5% 1/4W	
R519	1-247-807-31	CARBON 100 5% 1/4W	
R520	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R521	1-249-413-11	CARBON 470 5% 1/4W F	
R522	1-249-415-11	CARBON 680 5% 1/4W F	
R523	1-249-417-11	CARBON 1K 5% 1/4W F	
R524	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R525	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R526	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R527	1-249-430-11	CARBON 12K 5% 1/4W	
R528	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R529	1-249-413-11	CARBON 470 5% 1/4W F	
R530	1-249-415-11	CARBON 680 5% 1/4W F	
R531	1-249-417-11	CARBON 1K 5% 1/4W F	
R532	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R533	1-249-421-11	CARBON 2.2K 5% 1/4W F	(EXCEPT 5:AEP, G, CIS/M)
R536	1-249-411-11	CARBON 330 5% 1/4W	
R537	1-249-429-11	CARBON 10K 5% 1/4W	
R538	1-249-429-11	CARBON 10K 5% 1/4W	
R539	1-249-417-11	CARBON 1K 5% 1/4W F	
R540	1-249-417-11	CARBON 1K 5% 1/4W F	

Ref. No.	Part No.	Description				Remark
R541	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R542	1-247-832-11	CARBON	1.1K	5%	1/4W	(M:IT)
R542	1-247-844-11	CARBON	3.6K	5%	1/4W	(M:US, CND)
R542	1-249-413-11	CARBON	470	5%	1/4W	F (5:G)
R542	1-249-421-11	CARBON	2.2K	5%	1/4W	F (EXCEPT 5:AEP, G, CIS/M)
R542	1-249-433-11	CARBON	22K	5%	1/4W	(5:CIS)
R542	1-249-426-11	CARBON	5.6K	5%	1/4W	(M:EE)
R543	1-249-423-11	CARBON	3.3K	5%	1/4W	F (EXCEPT 5:AEP/M:AEP, UK)
R545	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R546	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R547	1-249-411-11	CARBON	330	5%	1/4W	
R548	1-249-429-11	CARBON	10K	5%	1/4W	
R549	1-249-429-11	CARBON	10K	5%	1/4W	
R550	1-249-406-11	CARBON	120	5%	1/4W	F
R551	1-249-429-11	CARBON	10K	5%	1/4W	
R552	1-249-425-11	CARBON	4.7K	5%	1/4W	F (EXCEPT 5:G/M:IT)
R601	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R602	1-249-441-11	CARBON	100K	5%	1/4W	
R603	1-249-441-11	CARBON	100K	5%	1/4W	
R604	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R605	1-249-413-11	CARBON	470	5%	1/4W	F
R606	1-247-807-31	CARBON	100	5%	1/4W	
R607	1-247-903-00	CARBON	1M	5%	1/4W	
R608	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R609	1-249-417-11	CARBON	1K	5%	1/4W	F
R610	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R611	1-249-440-11	CARBON	82K	5%	1/4W	
R612	1-249-429-11	CARBON	10K	5%	1/4W	
R613	1-247-887-00	CARBON	220K	5%	1/4W	
R614	1-247-903-00	CARBON	1M	5%	1/4W	
R615	1-247-891-00	CARBON	330K	5%	1/4W	
R616	1-247-844-11	CARBON	3.6K	5%	1/4W	
R618	1-249-429-11	CARBON	10K	5%	1/4W	
R619	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-437-11	CARBON	47K	5%	1/4W	
R622	1-249-437-11	CARBON	47K	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R623	1-247-864-11	CARBON	24K	5%	1/4W	
R624	1-249-437-11	CARBON	47K	5%	1/4W	
R625	1-249-417-11	CARBON	1K	5%	1/4W	F
R626	1-249-437-11	CARBON	47K	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R627	1-249-411-11	CARBON	330	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R628	1-249-429-11	CARBON	10K	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R651	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R652	1-249-441-11	CARBON	100K	5%	1/4W	
R653	1-249-441-11	CARBON	100K	5%	1/4W	
R654	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R655	1-249-413-11	CARBON	470	5%	1/4W	F
R656	1-247-807-31	CARBON	100	5%	1/4W	
R657	1-249-441-11	CARBON	100K	5%	1/4W	
R658	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R659	1-249-417-11	CARBON	1K	5%	1/4W	F
R660	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R671	1-249-437-11	CARBON	47K	5%	1/4W	
R672	1-249-437-11	CARBON	47K	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R673	1-247-864-11	CARBON	24K	5%	1/4W	
R674	1-249-437-11	CARBON	47K	5%	1/4W	
R675	1-249-417-11	CARBON	1K	5%	1/4W	F
R676	1-249-437-11	CARBON	47K	5%	1/4W	(EXCEPT 5:AEP, G, CIS/M)
R700	1-249-437-11	CARBON	47K	5%	1/4W	
R701	1-249-437-11	CARBON	47K	5%	1/4W	
R702	1-249-437-11	CARBON	47K	5%	1/4W	(5:AEP, G, CIS/M:AEP, UK, IT, EE)
R703	1-249-437-11	CARBON	47K	5%	1/4W	
R704	1-249-437-11	CARBON	47K	5%	1/4W	
R705	1-249-437-11	CARBON	47K	5%	1/4W	(5:AEP, G, CIS/M:AEP, UK, IT, EE)
R706	1-249-437-11	CARBON	47K	5%	1/4W	
R707	1 249 437-11	CARBON	47K	5%	1/4W	(5:AEP, G, CIS/M:AEP, UK, IT, EE)
R708	1-249-437-11	CARBON	47K	5%	1/4W	
R709	1-249-437-11	CARBON	47K	5%	1/4W	
R710	1-249-437-11	CARBON	47K	5%	1/4W	
R711	1-249-437-11	CARBON	47K	5%	1/4W	
R712	1-249-437-11	CARBON	47K	5%	1/4W	

< VARIABLE RESISTOR >

RV601	1-223-296-11	RES, VAR, SLIDE 250K/250K (12KHz)
RV602	1-223-296-11	RES, VAR, SLIDE 250K/250K (4KHz)
RV603	1-223-296-11	RES, VAR, SLIDE 250K/250K (1KHz)
RV604	1-223-296-11	RES, VAR, SLIDE 250K/250K (400Hz)
RV605	1-223-296-11	RES, VAR, SLIDE 250K/250K (100Hz)

< SWITCH >

S501	1-572-184-11	SWITCH, KEYBOARD (D BFB)
S502	1-571-760-11	SWITCH, KEYBOARD (S-SUR)
S503	1-571-760-11	SWITCH, KEYBOARD (MEMORY/NEXT)
S504	1-571-760-11	SWITCH, KEYBOARD (FUCTION)

DISPLAY | LEAF SW | LOADING | MAIN

Ref. No.	Part No.	Description	Remark
S505	1-571-760-11	SWITCH, KEYBOARD (TUNNER/BAND)	
S506	1-571-760-11	SWITCH, KEYBOARD (TUNNER/TIMER UP)	
S507	1-571-760-11	SWITCH, KEYBOARD (TUNNER/TIMER DOWN)	
S508	1-571-760-11	SWITCH, KEYBOARD (PRESET/TUNING)	
S509	1-571-760-11	SWITCH, KEYBOARD (SYSTEM POWER)	
S510	1-571-760-11	SWITCH, KEYBOARD (TIMER SET)	
S511	1-571-760-11	SWITCH, KEYBOARD (DAILY)	
S512	1-571-760-11	SWITCH, KEYBOARD (REC TIMER)	
S513	1-571-760-11	SWITCH, KEYBOARD (CLOCK SET)	
S514	1-572-184-11	SWITCH, KEYBOARD (KARAOKE PON)	(EXCEPT 5:AEP, G, CIS/M)
		< VIBRATOR >	
X501	1-567-098-41	VIBRATOR, CRYSTAL (32KHz)	
X502	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)	
**********			
*	1-650-669-11	LEAF SW BOARD **********	
*	3-381-776-01	HOLDER (LED)	
		< CONNECTOR >	
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P	
		< TRANSISTOR >	
Q1001	8-719-710-02	TRANSISTOR PHOTO REFLECTOR NJL5165K-A	
Q1002	8-719-710-02	TRANSISTOR PHOTO REFLECTOR NJL5165K-A	
		< RESISTOR >	
R1001	1-249-412-11	CARBON 390 5% 1/4W F	
R1002	1-249-412-11	CARBON 390 5% 1/4W F	
R1003	1-249-414-11	CARBON 560 5% 1/4W F	
R1004	1-247-834-11	CARBON 1.3K 5% 1/4W	
R1005	1-247-818-11	CARBON 300 5% 1/4W	
		< SWITCH >	
S1001	1-692-832-11	SWITCH, PUSH (1 KEY) (DECK A:PLAY)	
S1002	1-692-832-11	SWITCH, PUSH (1 KEY) (DECK B:PLAY)	
S1003	1-572-248-11	SWITCH, LEAF (DECK A:HALF)	
S1004	1-571-281-21	SWITCH, LEAF (DECK A:CrO2)	
S1005	1-571-281-21	SWITCH, LEAF (DECK A:REC)	
S1006	1-572-248-11	SWITCH, LEAF (DECK B:HALF)	
S1008	1-571-281-21	SWITCH, LEAF (DECK B:CrO2)	
S1009	1-571-281-21	SWITCH, LEAF (DECK B:REC)	
**********			

Ref. No.	Part No.	Description	Remark
*	1-650-836-11	LOADING BOARD **********	
		< CONNECTOR >	
CN291	1-580-918-11	HOUSING, CONNECTOR 5P	
		< SWITCH >	
S291	1-572-086-11	SWITCH, LEAF (LOAD IN)	
S292	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
**********			
*	A-4369-617-A	MAIN BOARD, COMPLETE (5:AEP) **********	
*	A-4369-618-A	MAIN BOARD, COMPLETE ********** (5:E, EA, MX, MY, SP, AUS, PX, JE)	
*	A-4369-619-A	MAIN BOARD, COMPLETE (M:EE) **********	
*	A-4369-620-A	MAIN BOARD, COMPLETE (5:G) **********	
*	A-4369-621-A	MAIN BOARD, COMPLETE (5:CIS) **********	
*	A-4369-639-A	MAIN BOARD, COMPLETE (M:AEP) **********	
*	A-4369-640-A	MAIN BOARD, COMPLETE (M:IT) **********	
*	A-4369-641-A	MAIN BOARD, COMPLETE (M:US) **********	
*	A-4369-642-A	MAIN BOARD, COMPLETE (M:CND) **********	
*	A-4369-651-A	MAIN BOARD, COMPLETE (M:UK) **********	
		< CAPACITOR >	
C1	1-162-195-31	CERAMIC 4.7PF 10% 50V	(EXCEPT 5:G/M)
C2	1-124-477-11	ELECT 47uF 20% 25V	
C3	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C5	1-164-159-11	CERAMIC 0.1uF 50V	
C6	1-164-159-11	CERAMIC 0.1uF 50V	(EXCEPT 5:G/M:US, CND, IT)
C7	1-162-193-31	CERAMIC 3.3PF 10% 50V	(5:AEP, CIS/M:UK, AEP, EE)
C7	1-162-195-31	CERAMIC 4.7PF 10% 50V	(M:US, CND, IT)

MAIN

Ref. No.	Part No.	Description				Remark
C7	1-162-196-31	CERAMIC	5.6PF	10%	50V	(5:G)
C7	1-162-197-31	CERAMIC	6.8PF	10%	50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C8	1-164-159-11	CERAMIC	0.1uF		50V	
			(EXCEPT 5:G/M:US, CND, IT)			
C9	1-162-195-31	CERAMIC	4.7PF	10%	50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C9	1-162-280-31	CERAMIC	82PF	10%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C10	1-164-159-11	CERAMIC	0.1uF		50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C11	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C12	1-102-120-00	CERAMIC	0.0018uF	10%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C13	1-130-480-00	MYLAR	0.0056uF	5%	50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C14	1-161-379-00	CERAMIC	0.01uF	20%	25V	
			(EXCEPT 5:AEP, G, CIS/M)			
C15	1-161-379-00	CERAMIC	0.01uF	20%	25V	
			(EXCEPT 5:AEP, G, CIS/M)			
C20	1-162-211-31	CERAMIC	33PF	5%	50V	
			(5:AEP/M:US, CND, AEP)			
C21	1-162-205-31	CERAMIC	18PF	5%	50V	
C22	1-162-205-31	CERAMIC	18PF	5%	50V	
C23	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C24	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C25	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C26	1-124-907-11	ELECT	10uF	20%	50V	
C27	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C28	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C29	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C30	1-124-477-11	ELECT	47uF	20%	25V	
C31	1-124-925-11	ELECT	2.2uF	20%	100V	
C32	1-136-153-00	FILM	0.01uF	5%	50V	
C33	1-124-463-00	ELECT	0.1uF	20%	50V	
C34	1-124-902-00	ELECT	0.47uF	20%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C35	1-136-157-00	FILM	0.022uF	5%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C36	1-136-157-00	FILM	0.022uF	5%	50V	
			(5:AEP, CIS/M:AEP, UK, EE)			
C51	1-124-907-11	ELECT	10uF	20%	50V	
C52	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C53	1-162-282-31	CERAMIC	100PF	10%	50V	
C54	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C55	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C57	1-124-925-11	ELECT	2.2uF	20%	100V	
C58	1-124-903-11	ELECT	1uF	20%	50V	

Ref. No.	Part No.	Description				Remark
C59	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C60	1-124-903-11	ELECT	1uF	20%	50V	
C61	1-136-153-00	FILM	0.01uF	5%	50V	
			(EXCEPT 5:G/M:US, CND, IT)			
C61	1-136-155-00	FILM	0.015uF	5%	50V	
						(M:US, CND)
C61	1-136-156-00	FILM	0.018uF	5%	50V	
						(5:G/M:IT)
C62	1-136-153-00	FILM	0.01uF	5%	50V	
			(EXCEPT 5:G/M:US, CND, IT)			
C62	1-136-155-00	FILM	0.015uF	5%	50V	
						(M:US, CND)
C62	1-136-156-00	FILM	0.018uF	5%	50V	
						(5:G/M:IT)
C63	1-124-903-11	ELECT	1uF	20%	50V	
C64	1-124-903-11	ELECT	1uF	20%	50V	
C66	1-124-903-11	ELECT	1uF	20%	50V	
C67	1-124-903-11	ELECT	1uF	20%	50V	
C68	1-102-126-00	CERAMIC	0.0056uF	10%	50V	
C69	1-102-126-00	CERAMIC	0.0056uF	10%	50V	
C73	1-124-903-11	ELECT	1uF	20%	50V	
C74	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
						(5:G/M:IT)
C74	1-162-293-31	CERAMIC	820PF	10%	50V	
					(EXCEPT 5:G/M:IT)	
C75	1-161-377-00	CERAMIC	0.0047uF	30%	16V	
C76	1-124-916-11	ELECT	22uF	20%	63V	
C77	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C78	1-126-962-11	ELECT	3.3uF	20%	50V	
C79	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C80	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C81	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C82	1-162-207-31	CERAMIC	22PF	5%	50V	
			(EXCEPT 5:G/M:US, CND, IT)			
C90	1-124-907-11	ELECT	10uF	20%	50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C91	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C92	1-124-477-11	ELECT	47uF	20%	25V	
			(EXCEPT 5:AEP, G, CIS/M)			
C92	1-124-907-11	ELECT	10uF	20%	50V	
					(5:AEP, G, CIS/M)	
C93	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C95	1-161-379-00	CERAMIC	0.01uF	20%	25V	
					(5:AEP, G, CIS/M)	
C95	1-164-159-11	CERAMIC	0.1uF		50V	
			(EXCEPT 5:AEP, G, CIS/M)			
C96	1-124-907-11	ELECT	10uF	20%	50V	
C201	1-124-443-00	ELECT	100uF	20%	10V	
C202	1-124-443-00	ELECT	100uF	20%	10V	

MAIN

Ref. No.	Part No.	Description			Remark
C204	1-124-902-00	ELECT	0.47uF	20%	50V
C205	1-161-379-00	CERAMIC	0.01uF	20%	25V
C206	1-126-952-11	ELECT	1000uF	20%	16V
C207	1-162-294-31	CERAMIC	0.001uF	10%	50V
C208	1-164-159-11	CERAMIC	0.1uF		50V
C209	1-124-902-00	ELECT	0.47uF	20%	50V
C210	1-101-005-00	CERAMIC	22000PF		50V
C211	1-164-159-11	CERAMIC	0.1uF		50V
C212	1-164-159-11	CERAMIC	0.1uF		50V
C213	1-162-282-31	CERAMIC	100PF	10%	50V
C214	1-162-282-31	CERAMIC	100PF	10%	50V
C215	1-162-282-31	CERAMIC	100PF	10%	50V
C321	1-124-907-11	ELECT	10uF	20%	50V
C322	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C323	1-162-290-31	CERAMIC	470PF	10%	50V
C324	1-124-907-11	ELECT	10uF	20%	50V
C325	1-136-165-00	FILM	0.1uF	5%	50V
C326	1-124-903-11	ELECT	1uF	20%	50V
C327	1-124-902-00	ELECT	0.47uF	20%	50V
C328	1-124-903-11	ELECT	1uF	20%	50V
C329	1-124-907-11	ELECT	10uF	20%	50V
C330	1-124-443-00	ELECT	100uF	20%	10V
C371	1-161-379-00	CERAMIC	0.01uF	20%	25V
C385	1-164-159-11	CERAMIC	0.1uF		50V
C386	1-164-159-11	CERAMIC	0.1uF		50V
C421	1-124-907-11	ELECT	10uF	20%	50V
C422	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C423	1-162-290-31	CERAMIC	470PF	10%	50V
C424	1-124-907-11	ELECT	10uF	20%	50V
C425	1-136-165-00	FILM	0.1uF	5%	50V
C426	1-124-903-11	ELECT	1uF	20%	50V
C427	1-124-902-00	ELECT	0.47uF	20%	50V
C428	1-124-903-11	ELECT	1uF	20%	50V
C429	1-124-907-11	ELECT	10uF	20%	50V
C430	1-124-443-00	ELECT	100uF	20%	10V
C451	1-124-916-11	ELECT	22uF	20%	63V
C701	1-162-282-31	CERAMIC	100PF	10%	50V (EXCEPT 5:G/M:IT)
C701	1-162-288-31	CERAMIC	330PF	10%	50V (5:G/M:IT)
C702	1-162-282-31	CERAMIC	100PF	10%	50V (EXCEPT 5:G/M:IT)
C702	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C703	1-162-282-31	CERAMIC	100PF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C704	1-124-907-11	ELECT	10uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C705	1-102-126-00	CERAMIC	0.0056uF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C706	1-102-120-00	CERAMIC	0.0018uF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C707	1-124-903-11	ELECT	1uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C708	1-161-379-00	CERAMIC	0.01uF	20%	25V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C709	1-124-907-11	ELECT	10uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C711	1-164-159-11	CERAMIC	0.1uF		50V
C731	1-124-443-00	ELECT	100uF	20%	10V
C732	1-161-379-00	CERAMIC	0.01uF	20%	25V
C751	1-162-282-31	CERAMIC	100PF	10%	50V (EXCEPT 5:G/M:IT)
C751	1-162-288-31	CERAMIC	330PF	10%	50V (5:G/M:IT)
C752	1-162-282-31	CERAMIC	100PF	10%	50V (EXCEPT 5:G/M:IT)
C752	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C753	1-162-282-31	CERAMIC	100PF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C754	1-124-907-11	ELECT	10uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C755	1-102-126-00	CERAMIC	0.0056uF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C756	1-102-120-00	CERAMIC	0.0018uF	10%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C757	1-124-903-11	ELECT	1uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C758	1-161-379-00	CERAMIC	0.01uF	20%	25V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C759	1-124-907-11	ELECT	10uF	20%	50V (5:AEP, G, CIS/M:AEP, UK, IT, EE)
C761	1-164-159-11	CERAMIC	0.1uF		50V
C809	1-164-159-11	CERAMIC	0.1uF		50V (5:G/M:IT)
C859	1-164-159-11	CERAMIC	0.1uF		50V (5:G/M:IT)
C981	1-124-604-00	ELECT	330uF	20%	10V
C982	1-124-443-00	ELECT	100uF	20%	10V
C983	1-124-903-11	ELECT	1uF	20%	50V
C984	1-124-903-11	ELECT	1uF	20%	50V
C985	1-126-926-11	ELECT	1000uF	20%	10V
C3001	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C3002	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)

MAIN

Ref. No.	Part No.	Description	Remark
Q5	8-729-119-77	TRANSISTOR 2SA1175-FEK	(EXCEPT 5:G/M:US, CND, IT)
Q6	8-729-900-80	TRANSISTOR DTC114ES	(EXCEPT 5:G/M:US, CND, IT)
Q7	8-729-900-80	TRANSISTOR DTC114ES	(EXCEPT 5:G/M:US, CND, IT)
Q8	8-729-900-80	TRANSISTOR DTC114ES	(EXCEPT 5:G/M:US, CND, IT)
Q9	8-729-119-79	TRANSISTOR 2SC2785-FEK	(EXCEPT 5:G/M:US, CND, IT)
Q15	8-729-216-12	TRANSISTOR 2SK161Y-TPE4	(EXCEPT 5:AEP, G, CIS/M)
Q21	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q22	8-729-201-83	TRANSISTOR 2SC3112	
Q23	8-729-202-67	TRANSISTOR 2SK246-GR3	(5:AEP, CIS/M:AEP, UK, EE)
Q24	8-729-201-83	TRANSISTOR 2SC3112	(5:AEP, CIS/M:AEP, UK, EE)
Q51	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q52	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q53	8-729-900-80	TRANSISTOR DTC114ES	
Q53	8-729-206-20	TRANSISTOR RN1202	
Q201	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q202	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q203	8-729-900-80	TRANSISTOR DTC114ES	
Q204	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q205	8-729-900-80	TRANSISTOR DTC114ES	
Q206	8-729-144-44	TRANSISTOR 2SD1513-K	
Q207	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q208	8-729-900-80	TRANSISTOR DTC114ES	
Q209	8-729-900-61	TRANSISTOR DTA114ES	
Q321	8-729-900-74	TRANSISTOR DTC143TS	
Q421	8-729-900-74	TRANSISTOR DTC143TS	
Q701	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q751	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q981	8-729-900-80	TRANSISTOR DTC114ES	
Q982	8-729-900-61	TRANSISTOR DTA114ES	
		< RESISTOR >	
R1	1-249-411-11	CARBON 330 5% 1/4W	
R2	1-249-411-11	CARBON 330 5% 1/4W	
R3	1-247-891-00	CARBON 330K 5% 1/4W	
R4	1-249-411-11	CARBON 330 5% 1/4W	
R5	1-247-891-00	CARBON 330K 5% 1/4W	(5:G/M:IT)
R6	1-249-411-11	CARBON 330 5% 1/4W	(5:G/M:IT)
R7	1-247-807-31	CARBON 100 5% 1/4W	(EXCEPT 5:G/M:IT)
R7	1-249-401-11	CARBON 47 5% 1/4W F	(5:G/M:IT)
R8	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT 5:G/M:US, CND, IT)
R10	1-249-437-11	CARBON 47K 5% 1/4W	
R11	1-249-429-11	CARBON 10K 5% 1/4W	
R12	1-249-425-11	CARBON 4.7K 5% 1/4W F	(EXCEPT 5:G/M:US, CND, IT)
R13	1-247-903-00	CARBON 1M 5% 1/4W	(EXCEPT 5:AEP, G, CIS/M)
R13	1-249-437-11	CARBON 47K 5% 1/4W	(5:AEP, CIS/M:AEP, UK, EE)
R14	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT 5:G/M:US, CND, IT)
R15	1-249-414-11	CARBON 560 5% 1/4W F	
R17	1-247-903-00	CARBON 1M 5% 1/4W	(5:AEP, CIS/M:AEP, UK, EE)
R18	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT 5:G/M:US, CND, IT)
R19	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT 5:G/M:US, CND, IT)
R20	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT 5:G/M:US, CND, IT)
R21	1-249-417-11	CARBON 1K 5% 1/4W F	
R22	1-249-417-11	CARBON 1K 5% 1/4W F	
R23	1-249-417-11	CARBON 1K 5% 1/4W F	
R24	1-247-807-31	CARBON 100 5% 1/4W	
R25	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R26	1-249-417-11	CARBON 1K 5% 1/4W F	
R27	1-249-409-11	CARBON 220 5% 1/4W F	
R28	1-247-807-31	CARBON 100 5% 1/4W	
R30	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R31	1-249-414-11	CARBON 560 5% 1/4W F	
R32	1-249-417-11	CARBON 1K 5% 1/4W F	
R33	1-249-410-11	CARBON 270 5% 1/4W F	
R34	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R35	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R36	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R37	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R38	1-247-807-31	CARBON 100 5% 1/4W	
R39	1-249-423-11	CARBON 3.3K 5% 1/4W F	(5:AEP, CIS/M:AEP, UK, EE)
R40	1-249-414-11	CARBON 560 5% 1/4W F	(5:AEP, CIS/M:AEP, UK, EE)
R41	1-249-417-11	CARBON 1K 5% 1/4W F	(5:AEP, CIS/M:AEP, UK, EE)
R42	1-249-410-11	CARBON 270 5% 1/4W F	(5:AEP, CIS/M:AEP, UK, EE)
R43	1-249-433-11	CARBON 22K 5% 1/4W	(5:AEP, CIS/M:AEP, UK, EE)

Ref. No.	Part No.	Description			Remark
C3003	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C4001	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C4002	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C4003	1-162-286-31	CERAMIC	220PF	10%	50V (5:G/M:IT)
C7001	1-162-282-31	CERAMIC	100PF	10%	50V (5:G/M:IT)
C7051	1-162-282-31	CERAMIC	100PF	10%	50V (5:G/M:IT)
		< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC (10.7MS)			
CF2	1-567-389-11	FILTER, CERAMIC (5:G/M:IT)			
CF51	1-567-389-11	FILTER, CERAMIC (10.7MS)			
		< CONNECTOR >			
* CN51	1-568-832-11	SOCKET, CONNECTOR 13P (5:CIS)			
CN101	1-764-288-11	PIN, CONNECTOR (PC BOARD) 20P			
* CN102	1-573-085-11	CONNECTOR, FPC (NON ZIF) 19P			
CN104	1-568-443-11	SOCKET, CONNECTOR 13P			
CN201	1-764-289-11	PIN, CONNECTOR (PC BOARD) 22P			
CN202	1-695-334-11	PIN, CONNECTOR (PC BOARD) 11P			
CN203	1-695-344-11	PIN, CONNECTOR (PC BOARD) 21P			
		< VARIABLE CAPACITOR >			
CV1	1-141-227-00	CAP, TRIMMER	20PF (EXCEPT 5:AEP, G, CIS/M)		
CV2	1-141-227-00	CAP, TRIMMER	20PF (EXCEPT 5:AEP, G, CIS/M)		
		< DIODE >			
D1	8-719-976-30	DIODE	KV1560N (EXCEPT 5:AEP, G, CIS/M)		
D21	8-719-010-32	DIODE	UZ-4.7BSA (EXCEPT 5:CIS)		
D21	8-719-010-40	DIODE	UZ-5.6BS (5:CIS)		
D51	8-719-987-63	DIODE	1N4148M		
D52	8-719-987-63	DIODE	1N4148M (5:CIS)		
D201	8-719-987-63	DIODE	1N4148M		
D202	8-719-987-63	DIODE	1N4148M		
D321	8-719-987-63	DIODE	1N4148M		
D322	8-719-987-63	DIODE	1N4148M		
D700	8-719-024-99	DIODE	11ES2		
		< FRONT END >			
FE1	1-465-673-11	FRONT END (2 BAND) (EXCEPT 5:G, CIS/M:IT, EE)			
FE1	1-465-007-11	FRONT END (4 GANG) (5:G/M:IT)			
FE1	1-465-396-11	FRONT END (3 GANG) (5:CIS/M:EE)			
FE2	1-239-260-11	ENCAPSULATED COMPONENT (5:G/M:US, CND, IT)			
FE2	1-239-261-12	ENCAPSULATED COMPONENT (5:AEP, CIS/M:AEP, UK, EE)			
FE2	1-239-262-11	ENCAPSULATED COMPONENT (EXCEPT 5:AEP, G, CIS/M)			
FE3	1-239-846-11	ENCAPSULATED COMPONENT (5:AEP, CIS/M:AEP, UK, EE)			
		< IC >			
IC21	8-759-175-87	IC	LC7218		
IC51	8-759-090-40	IC	LA1831		
IC201	8-759-283-58	IC	M38122M2-067FP		
IC202	8-759-165-82	IC	PST600E		
IC203	8-759-822-09	IC	LB1641		
IC321	8-759-098-73	IC	HA12172NT		
IC701	8-759-634-50	IC	M5218AL (5:AEP, G, CIS/M:AEP, UK, IT, EE)		
IC703	8-759-000-48	IC	MC14052BCP		
IC731	8-759-820-62	IC	LB1639		
IC981	8-759-821-93	IC	LA5601		
		< IFT >			
IFT51	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)			
		< JACK >			
J701	1-764-767-11	JACK, PIN 2P (VIDEO/PHONO)			
J951	1-750-032-11	JACK (DIA. 3.5) (HEADDPHONES)			
		< COIL >			
L1	1-408-425-00	INDUCTOR 220uH (5:AEP, CIS/M:AEP, UK, EE)			
L2	1-410-521-11	INDUCTOR 100uH (EXCEPT 5:AEP, G, CIS/M)			
L21	1-410-482-31	INDUCTOR 100uH			
L51	1-410-496-11	INDUCTOR 1.5mH			
L206	1-410-521-11	INDUCTOR 100uH (5:G/M:IT)			
L451	1-410-482-31	INDUCTOR 100uH			
* L801	1-410-858-11	INDUCTOR 0uH (5:G/M:IT)			
* L851	1-410-858-11	INDUCTOR 0uH (5:G/M:IT)			
		< FILTER >			
LPF51	1-239-845-11	FILTER, LOW PASS			
LPF52	1-239-845-11	FILTER, LOW PASS			
		< TRANSISTOR >			
Q1	8-729-230-XX	TRANSISTOR	2SC2669OY-TPE4 (EXCEPT 5:G/M:IT)		
Q1	8-729-620-19	TRANSISTOR	2SC2724-CD (5:G/M:IT)		
Q2	8-729-620-19	TRANSISTOR	2SC2724-CD (5:G/M:IT)		
Q3	8-729-900-61	TRANSISTOR	DTA114ES		
Q4	8-729-119-77	TRANSISTOR	2SA1175-FEK (EXCEPT 5:G/M:US, CND, IT)		

Ref. No.	Part No.	Description				Remark
R44	1-249-421-11	CARBON	2.2K	5%	1/4W F	
			(5:AEP, CIS/M:AEP, UK, EE)			
R45	1-249-425-11	CARBON	4.7K	5%	1/4W F	
			(5:AEP, CIS/M:AEP, UK, EE)			
R46	1-249-425-11	CARBON	4.7K	5%	1/4W F	
			(5:AEP, CIS/M:AEP, UK, EE)			
R47	1-249-417-11	CARBON	1K	5%	1/4W F	
			(EXCEPT 5:G/M:US, CND, IT)			
R52	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R53	1-247-822-11	CARBON	430	5%	1/4W	
R54	1-247-870-11	CARBON	43K	5%	1/4W	
R55	1-249-429-11	CARBON	10K	5%	1/4W	
R56	1-247-842-11	CARBON	3K	5%	1/4W	
R57	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R58	1-249-433-11	CARBON	22K	5%	1/4W	
R59	1-249-414-11	CARBON	560K	5%	1/4W F	
R60	1-249-414-11	CARBON	560K	5%	1/4W F	
R61	1-247-891-00	CARBON	330K	5%	1/4W	
R62	1-247-891-00	CARBON	330K	5%	1/4W	
R63	1-249-419-11	CARBON	1.5K	5%	1/4W F	
R64	1-249-419-11	CARBON	1.5K	5%	1/4W F	
R65	1-249-420-11	CARBON	1.8K	5%	1/4W	
R66	1-249-420-11	CARBON	1.8K	5%	1/4W	
R69	1-249-399-11	CARBON	33	5%	1/4W F	
R70	1-249-413-11	CARBON	470	5%	1/4W F	
			(EXCEPT 5:AEP, G, CIS/M)			
R70	1-249-417-11	CARBON	1K	5%	1/4W F	
			(5:AEP, CIS/M:AEP, UK, EE)			
R71	1-249-429-11	CARBON	10K	5%	1/4W (5:CIS)	
R72	1-249-437-11	CARBON	47K	5%	1/4W	
R73	1-249-429-11	CARBON	10K	5%	1/4W	
R91	1-249-403-11	CARBON	68	5%	1/4W F	
			(EXCEPT 5:AEP, G, CIS/M)			
R91	1-249-404-00	CARBON	82	5%	1/4W (5:AEP, G/M)	
R91	1-249-406-11	CARBON	120	5%	1/4W F (5:CIS)	
R92	1-247-807-31	CARBON	100	5%	1/4W	
R93	1-247-420-11	CARBON	1.8K	5%	1/4W (5:CIS)	
R201	1-249-429-11	CARBON	10K	5%	1/4W	
R202	1-249-429-11	CARBON	10K	5%	1/4W	
R203	1-249-429-11	CARBON	10K	5%	1/4W	
R204	1-249-429-11	CARBON	10K	5%	1/4W	
R205	1-247-887-00	CARBON	220K	5%	1/4W	
R206	1-247-887-00	CARBON	220K	5%	1/4W	
R207	1-249-429-11	CARBON	10K	5%	1/4W	
R208	1-249-429-11	CARBON	10K	5%	1/4W	
R209	1-249-429-11	CARBON	10K	5%	1/4W	
R210	1-249-425-11	CARBON	4.7K	5%	1/4W F	
R211	1-249-435-11	CARBON	33K	5%	1/4W	
R212	1-247-903-00	CARBON	1M	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-249-429-11	CARBON	10K	5%	1/4W	
R215	1-249-409-11	CARBON	220	5%	1/4W F	
R216	1-249-409-11	CARBON	220	5%	1/4W F	
R217	1-249-409-11	CARBON	220	5%	1/4W F	
R218	1-249-409-11	CARBON	220	5%	1/4W F	
R219	1-249-409-11	CARBON	220	5%	1/4W F	
R220	1-249-411-11	CARBON	330	5%	1/4W	
R221	1-249-411-11	CARBON	330	5%	1/4W	
R222	1-249-411-11	CARBON	330	5%	1/4W	
R223	1-249-430-11	CARBON	12K	5%	1/4W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-249-414-11	CARBON	560	5%	1/4W F	
R226	1-249-414-11	CARBON	560	5%	1/4W F	
R227	1-247-807-31	CARBON	100	5%	1/4W	
R228	1-247-807-31	CARBON	100	5%	1/4W	
R229	1-247-807-31	CARBON	100	5%	1/4W	
R230	1-247-807-31	CARBON	100	5%	1/4W	
R231	1-247-807-31	CARBON	100	5%	1/4W	
R232	1-247-807-31	CARBON	100	5%	1/4W	
R233	1-249-437-11	CARBON	47K	5%	1/4W	
R234	1-249-437-11	CARBON	47K	5%	1/4W	
R235	1-249-436-11	CARBON	39K	5%	1/4W	
R236	1-249-436-11	CARBON	39K	5%	1/4W	
R237	1-249-417-11	CARBON	1K	5%	1/4W F	
R238	1-249-425-11	CARBON	4.7K	5%	1/4W F	
R239	1-249-425-11	CARBON	4.7K	5%	1/4W F	
R240	1-249-425-11	CARBON	4.7K	5%	1/4W F	
R241	1-249-429-11	CARBON	10K	5%	1/4W	
R242	1-249-429-11	CARBON	10K	5%	1/4W	
R321	1-249-430-11	CARBON	12K	5%	1/4W	
R322	1-249-431-11	CARBON	15K	5%	1/4W	
R323	1-249-429-11	CARBON	10K	5%	1/4W	
R324	1-249-424-11	CARBON	3.9K	5%	1/4W F	
R325	1-249-433-11	CARBON	22K	5%	1/4W	
R326	1-249-430-11	CARBON	12K	5%	1/4W F	
R327	1-249-425-11	CARBON	4.7K	5%	1/4W F	
R328	1-249-427-11	CARBON	6.8K	5%	1/4W F	
R371	1-249-432-11	CARBON	18K	5%	1/4W	
R372	1-249-429-11	CARBON	10K	5%	1/4W	
R373	1-249-429-11	CARBON	10K	5%	1/4W	
R374	1-249-429-11	CARBON	10K	5%	1/4W	
R375	1-249-429-11	CARBON	10K	5%	1/4W	
R376	1-249-429-11	CARBON	10K	5%	1/4W	
R377	1-249-429-11	CARBON	10K	5%	1/4W	
R378	1-249-429-11	CARBON	10K	5%	1/4W	
R379	1-249-429-11	CARBON	10K	5%	1/4W	
R381	1-247-864-11	CARBON	24K	5%	1/4W	
R382	1-247-864-11	CARBON	24K	5%	1/4W	

MAIN

Ref. No.	Part No.	Description	Remark
R383	1-247-876-11	CARBON 75K 5% 1/4W	
R384	1-249-429-11	CARBON 10K 5% 1/4W	
R385	1-249-429-11	CARBON 10K 5% 1/4W	
R421	1-249-430-11	CARBON 12K 5% 1/4W	
R422	1-249-431-11	CARBON 15K 5% 1/4W	
R423	1-249-429-11	CARBON 10K 5% 1/4W	
R424	1-249-424-11	CARBON 3.9K 5% 1/4W F	
R425	1-249-433-11	CARBON 22K 5% 1/4W	
R426	1-249-430-11	CARBON 12K 5% 1/4W F	
R427	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R428	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R701	1-249-417-11	CARBON 1K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R701	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:E, EA, MX, MY, SP, AUS, PX, JE/M:US, CND)	
R702	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R703	1-249-417-11	CARBON 1K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R704	1-247-897-11	CARBON 560K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R705	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R706	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R707	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:E, EA, MX, MY, SP, AUS, PX, JE/M:US, CND)	
R707	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R711	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R712	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R713	1-249-417-11	CARBON 1K 5% 1/4W F	
R714	1-249-417-11	CARBON 1K 5% 1/4W F	
R715	1-249-437-11	CARBON 47K 5% 1/4W	
R716	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R731	1-249-437-11	CARBON 47K 5% 1/4W	
R732	1-249-437-11	CARBON 47K 5% 1/4W	
R741	1-249-437-11	CARBON 47K 5% 1/4W	
R742	1-249-437-11	CARBON 47K 5% 1/4W	
R751	1-249-417-11	CARBON 1K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R751	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:E, EA, MX, MY, SP, AUS, PX, JE/M:US, CND)	
R752	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R753	1-249-417-11	CARBON 1K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R754	1-247-897-11	CARBON 560K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	

Ref. No.	Part No.	Description	Remark
R755	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R756	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R757	1-249-421-11	CARBON 2.2K 5% 1/4W F	
		(5:E, EA, MX, MY, SP, AUS, PX, JE/M:US, CND)	
R757	1-249-437-11	CARBON 47K 5% 1/4W	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
R761	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R762	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R763	1-249-417-11	CARBON 1K 5% 1/4W F	
R764	1-249-417-11	CARBON 1K 5% 1/4W F	
R765	1-249-437-11	CARBON 47K 5% 1/4W	
R766	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R810	1-249-412-11	CARBON 390 5% 1/4W F	
R811	1-249-389-11	CARBON 4.7 5% 1/4W F (5:G/M:IT)	
R860	1-249-412-11	CARBON 390 5% 1/4W F	
R861	1-249-389-11	CARBON 4.7 5% 1/4W F (5:G/M:IT)	
R914	1-216-349-00	CARBON 1 5% 1/2W (M:US, CND)	
R981	1-249-393-11	CARBON 10 5% 1/4W F	
⚠R982	1-217-637-00	FUSIBLE 1 5% 1/4W F	
R983	1-249-433-11	CARBON 22K 5% 1/4W	
R7001	1-249-417-11	CARBON 1K 5% 1/4W F (5:G/M:IT)	
R7051	1-249-417-11	CARBON 1K 5% 1/4W F (5:G/M:IT)	
		< VARIABLE RESISTOR >	
RV51	1-238-602-11	RES, ADJ, CARBON 47K	
		(FM TUNED LIGHTING LEVEL)	
RV351	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL L)	
RV451	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL R)	
RV731	1-223-652-12	RES, VAR, CARBON 100K/100K (VOLUME)	
		< TRANSFORMER >	
T1	1-409-505-11	COIL (ANT. SW3) (EXCEPT 5:AEP, G, CIS/M)	
T2	1-402-960-11	COIL (OSC SW3) (EXCEPT 5:AEP, G, CIS/M)	
T501	1-236-465-11	ENCAPSULATED COMPONENT (5:G/M:IT)	
		< TERMINAL >	
TB101	1-537-238-21	TERMINAL BOARD	
		(5:E, EA, MX, MY, SP, AUS, PX, JE/M:US, CND)	
TB101	1-537-488-11	TERMINAL BOARD (ANT)	
		(5:AEP, G, CIS/M:AEP, UK, IT, EE)	
* TB102	4-925-530-01	PLATE, GROUND (5)	
TB801	1-537-238-11	TERMINAL BOARD	
		< TEST PIN >	
* TP201	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	
* TP202	1-565-042-11	HOUSING, CONNECTOR (PC BOARD) 5P	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X21	1-579-585-11	VIBRATOR, CRYSTAL (7.2MHz)			
X51	1-579-777-11	DISCRIMINATOR, CERAMIC (10.7MHz)			
X52	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)			
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
**********					
*	A-4365-958-A	POLAR BOARD, COMPLETE (5:CIS)			
		**********			
		< CAPACITOR >			
C1701	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1702	1-130-014-00	FILM	470PF	5%	50V
C1703	1-124-902-00	ELECT	0.47uF	20%	50V
C1704	1-124-902-00	ELECT	0.47uF	20%	50V
C1705	1-164-098-11	CERAMIC	0.047uF		12V
C1706	1-124-903-11	ELECT	1uF	20%	50V
C1707	1-162-288-31	CERAMIC	330PF	10%	50V
C1708	1-124-903-11	ELECT	1uF	20%	50V
C1709	1-124-903-11	ELECT	1uF	20%	50V
C1710	1-137-364-11	FILM	0.001uF	5%	50V
C1711	1-137-364-11	FILM	0.001uF	5%	50V
C1712	1-130-736-11	FILM	0.01uF	5%	50V
C1713	1-130-736-11	FILM	0.01uF	5%	50V
C1714	1-124-903-11	ELECT	1uF	20%	50V
C1715	1-124-903-11	ELECT	1uF	20%	50V
C1716	1-124-903-11	ELECT	1uF	20%	50V
C1717	1-162-291-31	CERAMIC	560PF	10%	50V
C1718	1-162-291-31	CERAMIC	560PF	10%	50V
C1719	1-124-477-11	ELECT	47uF	20%	25V
C1720	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1721	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1722	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1723	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1724	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1725	1-124-477-11	ELECT	47uF	20%	25V
C1726	1-124-903-11	ELECT	1uF	20%	50V
C1727	1-124-903-11	ELECT	1uF	20%	50V
C1728	1-104-792-51	ELECT	33uF	20%	16V
C1729	1-124-907-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN1701	1-568-832-11	SOCKET, CONNECTOR 13P			
		< TRIMMER >			
CT1701	1-141-260-00	CAP, TRIMMER	50PF		

Ref. No.	Part No.	Description				Remark
		< DIODE >				
D1701	8-719-987-63	DIODE	1N4148M			
D1702	8-719-987-63	DIODE	1N4148M			
D1703	8-719-987-63	DIODE	1N4148M			
D1704	8-719-987-63	DIODE	1N4148M			
D1705	8-719-987-63	DIODE	1N4148M			
		< IC >				
IC1701	8-759-063-04	IC	IR3R42			
IC1702	8-759-634-51	IC	M5218AP			
IC1703	8-759-140-53	IC	uPD4053BC			
		< COIL >				
L1701	1-409-497-11	COIL (FILTER) (SUB CARRIER)				
		< TRANSISTOR >				
Q1701	8-729-900-61	TRANSISTOR	DTA114ES			
Q1702	8-729-900-80	TRANSISTOR	DTC114ES			
Q1703	8-729-900-80	TRANSISTOR	DTC114ES			
Q1704	8-729-900-80	TRANSISTOR	DTC114ES			
Q1705	8-729-900-61	TRANSISTOR	DTA114ES			
		< RESISTOR >				
R1701	1-249-433-11	CARBON	22K	5%	1/4W	
R1702	1-249-435-11	CARBON	33K	5%	1/4W	
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R1704	1-247-858-11	CARBON	13K	5%	1/4W	
R1705	1-249-417-11	CARBON	1K	5%	1/4W	F
R1706	1-249-417-11	CARBON	1K	5%	1/4W	F
R1707	1-249-441-11	CARBON	100K	5%	1/4W	
R1708	1-249-440-11	CARBON	82K	5%	1/4W	
R1709	1-249-439-11	CARBON	68K	5%	1/4W	
R1710	1-249-439-11	CARBON	68K	5%	1/4W	
R1711	1-249-439-11	CARBON	68K	5%	1/4W	
R1712	1-247-878-00	CARBON	91K	5%	1/4W	
R1713	1-247-878-00	CARBON	91K	5%	1/4W	
R1714	1-249-441-11	CARBON	100K	5%	1/4W	
R1715	1-249-441-11	CARBON	100K	5%	1/4W	
R1716	1-249-441-11	CARBON	100K	5%	1/4W	
R1717	1-249-441-11	CARBON	100K	5%	1/4W	
R1718	1-249-429-11	CARBON	10K	5%	1/4W	
R1719	1-249-429-11	CARBON	10K	5%	1/4W	
R1720	1-249-429-11	CARBON	10K	5%	1/4W	
R1721	1-249-434-11	CARBON	27K	5%	1/4W	
R1722	1-249-441-11	CARBON	100K	5%	1/4W	

POLAR POWER

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV1701	1-238-600-11	RES, ADJ, CARBON 10K (SUB CARRIER)			
RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K (VCO FREQUENCY)			
		< TEST PIN >			
* TP1701	1-560-061-00	PIN, CONNECTOR 3P			
* TP1702	1-560-061-00	PIN, CONNECTOR 3P			
**********					
*	A-4369-636-A	POWER BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE)			
		**********			
*	A-4369-637-A	POWER BOARD, COMPLETE			
		**********			
		(5:E, EA, MX, MY, SP, AUS, PX, JE)			
*	A-4369-638-A	POWER BOARD, COMPLETE (5:G/M:IT)			
		**********			
*	A-4369-649-A	POWER BOARD, COMPLETE (M:US)			
		**********			
*	A-4369-650-A	POWER BOARD, COMPLETE (M:CND)			
		**********			
*	A-4369-655-A	POWER BOARD, COMPLETE (M:UK)			
		**********			
		< CAPACITOR >			
C801	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C802	1-124-903-11	ELECT	1uF	20% 50V	
C803	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C804	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C804	1-162-294-31	CERAMIC	0.001uF	10% 50V	
				(5:G/M:IT)	
C805	1-124-916-11	ELECT	22uF	20% 63V	
C806	1-124-910-11	ELECT	47uF	20% 50V	
C807	1-164-159-11	CERAMIC	0.1uF	50V	
C808	1-164-159-11	CERAMIC	0.1uF	50V	
C809	1-161-379-00	CERAMIC	0.01uF	20% 25V	
				(EXCEPT 5:G/M:IT)	
C810	1-124-910-11	ELECT	47uF	20% 50V	
C811	1-124-120-11	ELECT	220uF	20% 25V	
C851	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C852	1-124-903-11	ELECT	1uF	20% 50V	
C853	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C854	1-162-282-31	CERAMIC	100PF	10% 50V	
				(EXCEPT 5:G/M:IT)	
C854	1-162-294-31	CERAMIC	0.001uF	10% 50V	
				(5:G/M:IT)	
C855	1-124-916-11	ELECT	22uF	20% 63V	
C856	1-124-910-11	ELECT	47uF	20% 50V	
C857	1-164-159-11	CERAMIC	0.1uF	50V	
C858	1-164-159-11	CERAMIC	0.1uF	50V	
C859	1-161-379-00	CERAMIC	0.01uF	20% 25V	
				(EXCEPT 5:G/M:IT)	
C860	1-124-907-11	ELECT	10uF	20% 50V	
C861	1-124-484-11	ELECT	220uF	20% 35V	
C903	1-124-618-11	ELECT	2200uF	20% 35V	
C904	1-124-618-11	ELECT	2200uF	20% 35V	
C905	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C906	1-124-907-11	ELECT	10uF	20% 50V	
C907	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C908	1-124-927-11	ELECT	4.7uF	20% 100V	
C909	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C910	1-124-927-11	ELECT	4.7uF	20% 100V	
C911	1-124-927-11	ELECT	4.7uF	20% 100V	
C912	1-124-927-11	ELECT	4.7uF	20% 100V	
C913	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C914	1-124-907-11	ELECT	10uF	20% 50V	
C915	1-124-927-11	ELECT	4.7uF	20% 100V	
C916	1-124-564-11	ELECT	4700uF	20% 25V	
C917	1-124-563-11	ELECT	2200uF	20% 25V	
C918	1-164-159-11	CERAMIC	0.1uF	50V	
C921	1-124-907-11	ELECT	10uF	20% 50V	
C922	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C951	1-124-122-11	ELECT	100uF	20% 50V	
C952	1-124-122-11	ELECT	100uF	20% 50V	
C953	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C955	1-124-910-11	ELECT	47uF	20% 50V	
C956	1-124-465-00	ELECT	0.47uF	20% 50V	
		< CIRCUIT BREAKER >			
CB801	1-532-564-00	BREAKER, CIRCUIT			
CB851	1-532-564-00	BREAKER, CIRCUIT			
		< CONNECTOR >			
* CN902	1-564-717-11	PIN, CONNECTOR (SMALL TYPE) 15P			
CN903	1-568-828-11	PIN, CONNECTOR (PC BOARD) 9P			
		< DIODE >			
D821	8-719-987-63	DIODE 1N4148M			
D902	8-719-024-99	DIODE 11ES2			
D903	8-719-024-99	DIODE 11ES2			
D904	8-719-024-99	DIODE 11ES2			

Ref. No.	Part No.	Description			Remark
D905	8-719-024-99	DIODE	11ES2		
D906	8-719-010-47	DIODE	UZ-6.2BSC		
D921	8-719-013-13	DIODE	UZ-8.2BSC		
D951	8-719-024-99	DIODE	11ES2		
D952	8-719-024-99	DIODE	11ES2		
D953	8-719-011-07	DIODE	UZ-27BSB		
D954	8-719-014-79	DIODE	UZP-6.2BB		
D955	8-719-987-63	DIODE	1N4148M		
D956	8-719-987-63	DIODE	1N4148M		
		< FUSE >			
⚠F914	1-532-778-21	FUSE, MICRO	1.6A 125V (M:US, CND)		
		< IC >			
IC801	8-749-920-13	IC	STK-4132MK2		
IC901	8-759-602-66	IC	M5230L-A		
		< IC LINK >			
⚠ICP914	1-532-841-31	LINK, IC (5/M:AEP, UK, IT, EE)			
		< TRANSISTOR >			
Q901	8-729-209-15	TRANSISTOR	2SD2012		
Q902	8-729-209-15	TRANSISTOR	2SD2012		
Q903	8-729-141-83	TRANSISTOR	2SB1094-LK		
Q904	8-729-209-15	TRANSISTOR	2SD2012		
Q905	8-729-900-80	TRANSISTOR	DTC114ES		
		< RESISTOR >			
R801	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-438-11	CARBON	56K	5%	1/4W
R803	1-249-415-11	CARBON	680	5%	1/4W F
R804	1-249-438-11	CARBON	56K	5%	1/4W
⚠R805	1-217-641-00	FUSIBLE	4.7	5%	1/4W F
R806	1-249-421-11	CARBON	2.2K	5%	1/4W F
R807	1-249-421-11	CARBON	2.2K	5%	1/4W F
⚠R808	1-247-700-11	CARBON	100	5%	1/4W F
R809	1-249-389-11	CARBON	4.7	5%	1/4W F
R821	1-249-429-11	CARBON	10K	5%	1/4W
R822	1-249-437-11	CARBON	47K	5%	1/4W
R823	1-247-883-00	CARBON	150K	5%	1/4W
R825	1-249-429-11	CARBON	10K	5%	1/4W
R826	1-249-417-11	CARBON	1K	5%	1/4W F
R827	1-249-417-11	CARBON	1K	5%	1/4W F
R851	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-438-11	CARBON	56K	5%	1/4W
R853	1-249-415-11	CARBON	680	5%	1/4W F
R854	1-249-438-11	CARBON	56K	5%	1/4W
⚠R855	1-247-700-11	CARBON	100	5%	1/4W F
R856	1-249-421-11	CARBON	2.2K	5%	1/4W F
R857	1-249-421-11	CARBON	2.2K	5%	1/4W F
⚠R858	1-247-700-11	CARBON	100	5%	1/4W F
R859	1-249-389-11	CARBON	4.7	5%	1/4W F
⚠R901	1-217-641-00	FUSIBLE	4.7	5%	1/4W F
R902	1-249-417-11	CARBON	1K	5%	1/4W F
⚠R904	1-212-974-00	FUSIBLE	47	5%	1/2W F
R905	1-247-903-00	CARBON	1M	5%	1/4W
R906	1-249-406-11	CARBON	120	5%	1/4W F (M:US)
R907	1-249-431-11	CARBON	15K	5%	1/4W
R908	1-249-431-11	CARBON	15K	5%	1/4W
R909	1-247-842-11	CARBON	3K	5%	1/4W
R910	1-249-429-11	CARBON	10K	5%	1/4W
R911	1-249-417-11	CARBON	1K	5%	1/4W F
R912	1-249-417-11	CARBON	1K	5%	1/4W F
R915	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-247-811-31	CARBON	150	5%	1/4W
R951	1-249-417-11	CARBON	1K	5%	1/4W F
R952	1-249-433-11	CARBON	22K	5%	1/4W
		< TERMINAL >			
* TB901	4-925-530-01	PLATE, GROUND (EXCEPT 5:G/M:IT)			
**********					
*	1-651-852-11	POWER SUPPLY BOARD			
		**********			
	7-682-547-09	SCREW +BVTT	3X6 (S)		
		< CAPACITOR >			
C901	1-164-159-11	CERAMIC	0.1uF		50V
C902	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN901	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D901	8-719-312-09	DIODE	RBA-402		
		< FUSE >			
⚠F901	1-532-215-00	FUSE (T800mA 250V) (5/M:AEP, UK, IT, EE)			
⚠F901	1-532-259-00	FUSE (T1.6A 250V) (5:E, EA, MX, MY, SP, AUS, PX, JE)			
⚠F901	1-576-103-11	FUSE (T1.6A 125V) (M:US, CND)			
⚠F902	1-532-215-00	FUSE (T800mA 250V) (5:E, EA, MX, MY, SP, AUS, PX, JE)			

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POWER SUPPLY | SWITCH

Ref. No.	Part No.	Description	Remark
		< HOLDER FUSE >	
FH911	1-533-293-11	FUSE HOLDER	
FH912	1-533-293-11	FUSE HOLDER	
FH913	1-533-293-11	FUSE HOLDER (5:E, EA, MX, MY, SP, PX, JE)	
FH914	1-533-293-11	FUSE HOLDER (5:E, EA, MX, MY, SP, PX, JE)	
		< RESISTOR >	
⚠R954	1-219-119-81	FUSIBLE 0.1 5% 1/4W F	
⚠R955	1-219-119-81	FUSIBLE 0.1 5% 1/4W F	
R999	1-202-725-00	SOLID 3.3M 10% 1/2W (M:US, CND)	
		< SWITCH >	
⚠S901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (5:E, EA, MX, MY, SP, PX, JE)	
**********			
*	A-4369-624-A	SWITCH BOARD, COMPLETE (5:AEP, CIS/M:AEP, EE) **********	
*	A-4369-625-A	SWITCH BOARD, COMPLETE ********** (5:E, EA, MX, MY, SP, AUS, PX, JE)	
*	A-4369-626-A	SWITCH BOARD, COMPLETE (5:G/M:IT) **********	
*	A-4369-643-A	SWITCH BOARD, COMPLETE (M:US) **********	
*	A-4369-644-A	SWITCH BOARD, COMPLETE (M:CND) **********	
*	A-4369-652-A	SWITCH BOARD, COMPLETE (M:UK) **********	
		< CAPACITOR >	
C576	1-161-379-00	CERAMIC 0.01uF 20% 25V (EXCEPT 5:AEP, G, CIS/M)	
C577	1-126-157-11	ELECT 10uF 20% 16V (EXCEPT 5:AEP, G, CIS/M)	
C581	1-162-282-31	CERAMIC 100PF 10% 50V (EXCEPT 5:AEP, G, CIS/M)	
C582	1-162-282-31	CERAMIC 100PF 10% 50V (EXCEPT 5:AEP, G, CIS/M)	
C583	1-164-159-11	CERAMIC 0.1uF 50V (EXCEPT 5:AEP, G, CIS/M)	
C584	1-162-282-31	CERAMIC 100PF 10% 50V (EXCEPT 5:AEP, G, CIS/M)	
C585	1-162-282-31	CERAMIC 100PF 10% 50V (EXCEPT 5:AEP, G, CIS/M)	
C586	1-161-379-00	CERAMIC 0.01uF 20% 25V (EXCEPT 5:AEP, G, CIS/M)	
C587	1-126-157-11	ELECT 10uF 20% 16V (EXCEPT 5:AEP, G, CIS/M)	
		< CONNECTOR >	
CN572	1-580-482-11	SOCKET, CONNECTOR 7P	
CN751	1-764-301-11	HOUSING, CONNECTOR (PC BOARD) 22P	
		< DIODE >	
D381	8-719-032-87	DIODE SEL5420E-TP15 (DECK A ▶)	
D382	8-719-032-87	DIODE SEL5420E-TP15 (DECK A ◀)	
D383	8-719-033-06	DIODE SEL5920A (❚❚)	
D384	8-719-032-83	DIODE SEL5220S-TP15 (DECK B ●)	
D385	8-719-032-83	DIODE SEL5220S-TP15 (HIGHT SPEED DUBBING)	
D386	8-719-032-83	DIODE SEL5220S-TP15 (CD SYNCHRO)	
		< IC >	
IC571	8-759-634-50	IC M5218AL (EXCEPT 5:AEP, G, CIS/M)	
		< JACK >	
J752	1-563-935-31	JACK, STEREO HEADPHONE (MIX MIC) (EXCEPT 5:AEP, G, CIS/M)	
		< RESISTOR >	
R381	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R382	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R383	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R384	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R385	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R386	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R392	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R393	1-247-856-00	CARBON 11K 5% 1/4W	
R394	1-249-431-11	CARBON 15K 5% 1/4W	
R571	1-249-413-11	CARBON 470 5% 1/4W F	
R572	1-249-415-11	CARBON 680 5% 1/4W F	
R573	1-249-417-11	CARBON 1K 5% 1/4W F	
R574	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R575	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R576	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R578	1-249-413-11	CARBON 470 5% 1/4W F	
R579	1-249-415-11	CARBON 680 5% 1/4W F	
R580	1-249-417-11	CARBON 1K 5% 1/4W F	
R581	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R582	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R591	1-249-429-11	CARBON 10K 5% 1/4W (EXCEPT 5:AEP, G, CIS/M)	
R592	1-249-411-11	CARBON 330 5% 1/4W (EXCEPT 5:AEP, G, CIS/M)	

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Ref. No.	Part No.	Description	Remark
R593	1-249-441-11	CARBON 100K 5% 1/4W	(EXCEPT 5:AEP, G, CIS/M)
R594	1-247-895-00	CARBON 470K 5% 1/4W	(EXCEPT 5:AEP, G, CIS/M)
R595	1-249-423-11	CARBON 3.3K 5% 1/4W F	(EXCEPT 5:AEP, G, CIS/M)
		< SWITCH >	
S371	1-572-347-31	SWITCH, SLIDE (DOLBY NR)	
S372	1-572-378-11	SWITCH, SLIDE (DIRECTION)	
S381	1-572-184-11	SWITCH, KEYBOARD (DECK A ■)	
S382	1-572-184-11	SWITCH, KEYBOARD (DECK A ▶)	
S383	1-572-184-11	SWITCH, KEYBOARD (DECK A ◀)	
S384	1-572-184-11	SWITCH, KEYBOARD (CD SYNCHRO)	
S385	1-572-184-11	SWITCH, KEYBOARD (DECK A ◀◀)	
S386	1-572-184-11	SWITCH, KEYBOARD (DECK A ▶▶)	
S387	1-572-184-11	SWITCH, KEYBOARD (DECK B ●)	
S388	1-572-184-11	SWITCH, KEYBOARD (DECK B ❚❚)	
S389	1-572-184-11	SWITCH, KEYBOARD (HIGHT SPEED DUBBING)	
S571	1-572-184-11	SWITCH, KEYBOARD (■)	
S572	1-572-184-11	SWITCH, KEYBOARD (▶❚❚)	
S573	1-572-184-11	SWITCH, KEYBOARD (▶▶ ⏭)	
S574	1-572-184-11	SWITCH, KEYBOARD (⏮ ◀◀)	
S575	1-572-184-11	SWITCH, KEYBOARD (EDIT)	
S576	1-572-184-11	SWITCH, KEYBOARD (CLEAR)	
S577	1-572-184-11	SWITCH, KEYBOARD (CHECK)	
S578	1-572-184-11	SWITCH, KEYBOARD (⏏)	
S579	1-572-184-11	SWITCH, KEYBOARD (TIME)	
S580	1-572-184-11	SWITCH, KEYBOARD (REPEAT)	
S581	1-572-184-11	SWITCH, KEYBOARD (PROGRAM)	
S582	1-572-184-11	SWITCH, KEYBOARD (SHUFFLE)	
S583	1-572-184-11	SWITCH, KEYBOARD (CONTINUE)	
**********			
*	1-651-855-11	TC SWITCH BOARD	
		**********	
		< CONNECTOR >	
CN573	1-580-482-11	SOCKET, CONNECTOR 7P	
		< DIODE >	
D387	8-719-026-66	DIODE SML1460E (DECK B ▶)	
D388	8-719-026-66	DIODE SML1460E (DECK B ◀)	
		< RESISTOR >	
R387	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R388	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R390	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R391	1-249-420-11	CARBON 1.8K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S390	1-572-184-11	SWITCH, KEYBOARD (DECK B ■)	
S391	1-572-184-11	SWITCH, KEYBOARD (DECK B ▶)	
S392	1-572-184-11	SWITCH, KEYBOARD (DECK B ◀)	
S393	1-572-184-11	SWITCH, KEYBOARD (DECK B ◀◀)	
S394	1-572-184-11	SWITCH, KEYBOARD (DECK B ▶▶)	
**********			
		MISCELLANEOUS	
		**********	
⚠8	1-558-943-41	CORD, POWER (5:E, MX, PX, JE)	
⚠8	1-575-042-21	CORD, POWER (M:US, CND)	
⚠8	1-575-651-21	CORD, POWER (5:AEP, CIS, EA, MY, SP/M:AEP, EE)	
⚠8	1-696-845-11	CORD, POWER (5:AU)	
⚠8	1-751-522-11	CORD, POWER (M:UK)	
⚠8	1-765-650-11	CORD, POWER (WITH CORE) (5:G/M:IT)	
⚠9	1-569-007-11	ADAPTER, CONVERSION 2P (5:E, SP, PX, JE)	
⚠9	1-569-008-11	ADAPTER, CONVERSION 2P (5:EA, MY)	
17	1-590-036-31	WIRE (FLAT TYPE) (13 CORE) (5:CIS)	
18	1-765-477-21	WIRE (FLAT TYPE) (9 CORE)	
56	1-765-479-11	WIRE (FLAT TYPE) (13 CORE)	
61	1-765-481-21	WIRE (FLAT TYPE) (21 CORE)	
62	1-765-478-21	WIRE (FLAT TYPE) (11 CORE)	
65	1-765-480-21	WIRE (FLAT TYPE) (19 CORE)	
68	1-765-476-11	WIRE (FLAT TYPE) (7 CORE)	
262	1-751-806-11	WIRE (FLAT TYPE) (5 CORE)	
305	1-575-001-11	WIRE (FLAT TYPE) (12 CORE)	
ANT1	1-501-321-51	ANTENNA, TELESCOPIC	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	
M1	X-3369-110-1	MOTOR ASSY (CAPSTAN)	
M2	X-3369-111-1	MOTOR ASSY (TRIGGER)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-1	MOTOR ASSY (SPINDLE)	
M291	A-4604-363-A	MOTOR (L) ASSY	
⚠T901	1-426-700-11	TRANSFORMER, POWER (5:AEP, G, CIS/M:AEP, IT, EE)	
⚠T901	1-426-701-11	TRANSFORMER, POWER (M:UK)	
⚠T901	1-426-702-11	TRANSFORMER, POWER (5:E, EA, MX, MY, SP, AUS, PX, JE)	
⚠T901	1-426-703-11	TRANSFORMER, POWER (M:US, CND)	
**********			

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Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-620-11	COMMANDER, STANDARD (RM-S555) (M:UK)	
	1-501-374-11	ANTENNA, LOOP (M:UK)	
	1-501-594-11	ANTENNA (FM) (M:UK)	
	1-501-659-11	ANTENNA (FM) (M:US, CND)	
	1-557-954-21	CORD, SPEAKER (M:UK)	
	2-181-754-21	COVER (MLY), BATTERY (M:UK)	
	3-758-793-11	MANUAL, INSTRUCTION (M:UK)	
*	4-965-172-01	INDIVIDUAL CARTON (M:UK)	

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****
HARDWARE LIST
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#1	7-682-547-09	SCREW +BVTT 3X6 (S)	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#4	7-682-550-09	SCREW +BVTT 3X12 (S) (5/M:EE)	
#5	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
#6	7-621-775-00	SCREW +B 2.6X3	
#7	7-621-775-10	SCREW +B 2.6X4	
#8	7-623-921-01	RING, RETAINING, CAPSTAN	
#9	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#10	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#11	7-621-255-15	SCREW +P 2X3	
#12	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	

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